

H. W. MATALENE.
STEM WINDING AND SETTING WATCH.
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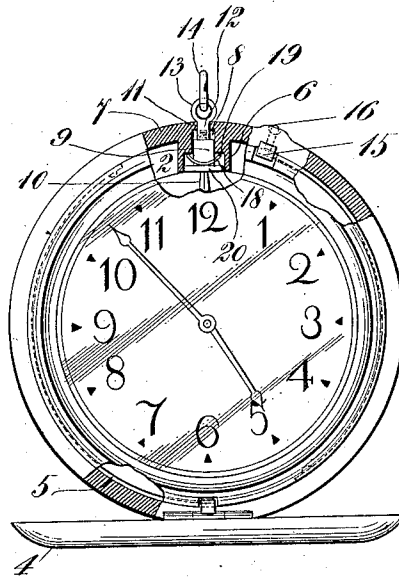


Fig. 1

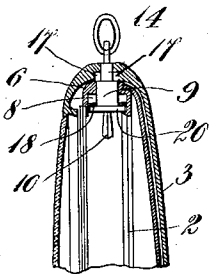


Fig. 4.

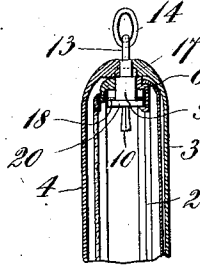


Fig. 2

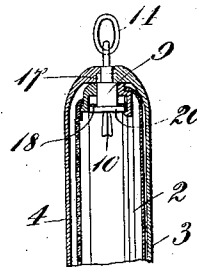


Fig. 3.

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STEM WINDING AND SETTING WATCH.

1,020,769.

Specification of Letters Patent.

Patented Mar. 19, 1912.

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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 and State of New York, have invented certain new and useful Improvements in Stem Winding and Setting Watches, of which the following is a specification.

This invention is particularly though not exclusively applicable to locket watches in which provision is made for suspending the watch directly from the upper end of the winding stem, as set forth in U. S. Letters Patent No. 918,757, granted to me on the 20th day of April, 1909, and is intended to simplify and otherwise improve upon prior constructions in certain respects which hereinafter appear.

In the accompanying drawing: Figure 1 is a front elevation, partly in section, of a watch containing my present improvements; Fig. 2 is a transverse section through the upper portion of the watch in the plane of the winding stem; and Figs. 3 and 4 are views similar to Fig. 2, illustrating slight modifications.

In Figs. 1 and 2 of the drawings I have shown my improvements as applied to a hunting case watch comprising a center 2, a back cover 3 and a front cover 4 provided with the usual spring 5 for opening it. At the top of the watch case the center 2 is provided with a hub 6 which is so shaped that the edges of the covers 3 and 4, when closed, overlap the top of the hub and abut against the relatively-thin peripheral portion 7 of the center, and in said hub 6 is formed a cylindrical recess 8 which extends slightly above the inner line of said peripheral portion 7 and also opens out upon the two side faces thereof. Within the recess 8 is located a winding terminal 9 which is cylindrical in form and is adapted to rotate in said recess as well as to move longitudinally therein, which terminal carries at its inner end the winding stem proper 10. A perforation 11 leads outward from the upper end of the recess 8 and contains a pin 12 which is screwed into or otherwise attached to the upper end of the terminal 9 after the latter has been placed in the recess 8 and is provided at its outer end with an eye 13 carrying a link 14 or other means for suspending the watch. Said pin 12 is of less diameter than the upper portion of the terminal 9, being substantially equal in diam-

eter to the thickness of the peripheral portion 7 of the center 2, so that the upper end of said terminal 9 provides shoulders which project laterally beyond the side faces of said portion 7.

When the parts are in the winding position shown in Figs. 1 and 2, the upper end of the terminal 9 is flush with the top of the hub 6 and is therefore overlapped by the edge of the front cover 4 when the latter is closed, the winding terminal and stem being thereby locked against outward movement. When in this position the winding stem may be rotated to wind the watch by turning the eye 13. The cover 4 is normally held closed by a spring catch 15 carried by the center 2, independently of and at one side of the terminal 9, and provided with an outwardly-projecting stem 16 by means of which said catch may be released, whereupon the cover 4 will be opened by its spring 5 and the dial will be exposed to view, leaving the terminal 9 and winding stem 10 free to be pulled outward into setting position, the back cover 3 being provided at its upper edge with a recess 17 to receive the underlying portion of the terminal when such outward movement thereof takes place. After the watch has been set the terminal and stem are pushed inward and the cover 4 is closed, thus locking the stem 10 in its winding position as above explained.

The locking arrangement just described has the advantages, as compared with the construction shown and described in my prior patent above referred to, that the watch case is thinner at its periphery and less expensive to construct, and it is also unnecessary to provide the cover of the watch with a special locking rib to engage the winding terminal. It is also an advantage of the described construction that the winding terminal 9 can be inserted into its recess from the interior of the case and have the pin 12 subsequently attached thereto, so that said terminal can be made integral with or permanently attached to the stem 10, if desired. It will be obvious that it is immaterial which of the covers 3 and 4 of a hunting case watch is utilized as a stop to lock the terminal 9 against outward movement, dis-regarding the convenience of having the dial exposed to view by the operation of unlocking said terminal, and in Fig. 3 I have illustrated a construction which is the same as that shown in

Figs. 1 and 2, except that in Fig. 3 the back cover 3 serves as a stop to prevent the outward movement of the terminal 9 and the front cover 4 is provided with the recess 17.

5 With the construction shown in Fig. 3 the presence of the front cover is of course unnecessary, and this construction may therefore be utilized for an open-face watch.

10 One of the features of my invention relates to a construction which is particularly adapted for use in connection with watch movements in which the so-called American system of setting is employed, and resides 15 in the omission of the sleeve usually combined with the winding stem in such movements and in the substitution therefor of a spring which constantly tends to hold the stem in its winding position. In the construction illustrated, this spring is shown at 20 18, and is preferably annular as viewed in plan and bow-shaped as viewed from one edge, being located within the laterally-enlarged lower portion of the recess 8 and having a bearing on the annular shoulder 19 25 provided at the top of said enlarged portion and on the top of a circular enlargement 20 formed on the lower end of the terminal 9, which terminal passes through the open center of said spring, as shown in Fig. 1. As 30 thus constructed, the terminal 9 and winding stem 10 may be pulled outward into setting position against the pressure of the spring 18 and will be forced inward by said spring when released. This spring is 35 advantageous, as compared with the sleeve usually employed to hold the winding stem in its extreme longitudinal positions, in that it is simpler and less expensive in construction and also operates automatically to 40 restore the winding stem to its winding position after it has been pulled outward. By making said spring strong enough to carry the weight of the watch when suspended the necessity for employing a positive stop to 45 prevent outward movement of the terminal 9 may be avoided, and in such case the front and back covers of the watch case, or the back cover and bezel of an open-face watch, will each be provided with a recess 17 50 to receive the corresponding portion of the terminal 9 when pulled outward, such an arrangement being illustrated in Fig. 4. I prefer, however, to employ a positive stop to lock the winding terminal against outward 55 movement in all cases in which the watch is suspended directly from the winding stem, but it will be evident that the spring 18 may be advantageously employed in stem-setting movements made according to the "American" system, whether the watch is suspended directly from its winding stem or not.

I claim as my invention:

35 1. In a stem winding and setting watch, the combination of a watch case provided in

the upper portion of its rim with a perforation leading inward to a recess which is of greater diameter than said perforation and opens at its outer end beneath the edge of the cover of the case, a winding terminal 70 movable inward and outward in said recess and having an outwardly-facing shoulder exposed through the opening therein for engagement by the edge of said cover, and means connected to the winding terminal 75 and passing outward through said perforation for manipulating said terminal.

2. In a stem winding and setting watch, the combination of a watch case comprising a center having a recess formed therein, said 80 recess being located wholly between the periphery of the case and the contained watch movement, a winding terminal movable inward and outward in said recess, an annular bow spring surrounding the terminal in its 85 recess and arranged to press said terminal inward, and a winding stem secured to said terminal.

3. In a stem winding and setting watch, the combination with the watch case of a 90 winding terminal mounted to rotate and to move longitudinally in the periphery thereof, a spring arranged to press said terminal inward, a winding stem secured to said terminal, and means carried by the outer end 95 of terminal for suspending the watch.

4. In a stem winding and setting watch, the combination of a watch case comprising a center having at the top of the case an inwardly-projecting hub of greater width than 100 said center, said hub being provided with a recess passing through the top of the hub on one side of said center, a winding terminal mounted to rotate and to move longitudinally in said recess and provided with a 105 shoulder located on a level with the top of said hub when said terminal is in its innermost position, whereby said shoulder is adapted to be engaged by the cover of the case when closed, a winding stem connected 110 to said terminal, and means carried by the outer end of the terminal for suspending the watch.

5. In a stem winding and setting watch, the combination of a watch case comprising 115 a center having a recess extending laterally through its upper portion, a winding terminal mounted to rotate and to move longitudinally in said recess and provided with a shoulder adapted to project beyond the center 120 into position to be engaged by the cover of the case, when closed, an annular spring surrounding said terminal in its recess and bearing simultaneously on a shoulder 125 formed therein and on a laterally-extending inner portion of the terminal, and a winding stem secured to said terminal.

6. In a stem winding and setting watch, the combination of a watch case comprising 130 a center having a recess extending laterally

through its upper portion, a winding terminal mounted to rotate and to move longitudinally in said recess and provided with a shoulder adapted to project beyond the center into position to be engaged by the cover of the case, when closed, an annular spring surrounding said terminal in its recess and bearing simultaneously on a shoulder formed therein and on a laterally-extending inner portion of the terminal, a winding stem se-

cured to said terminal, and means carried by the outer end of the terminal for suspending the watch.

In testimony whereof, I have hereunto subscribed my name this twenty-third day 15 of April, 1909.

HENRY W. MATALENE.

Witnesses:

E. D. CHADWICK,

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