

1,023,384.

Fig. 1.

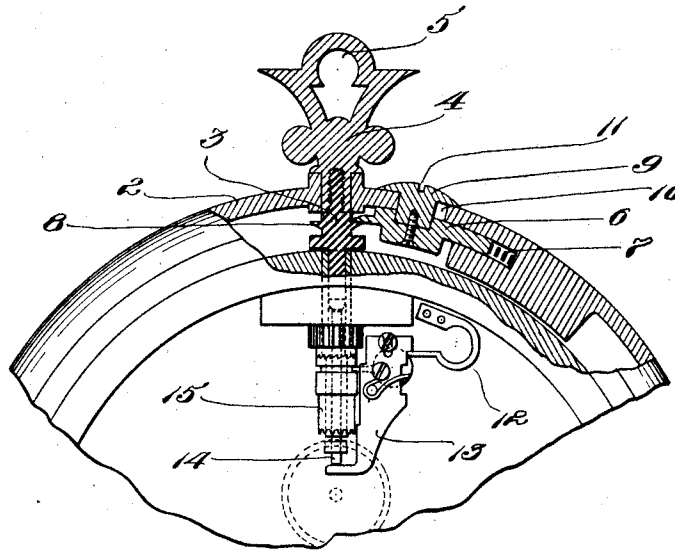
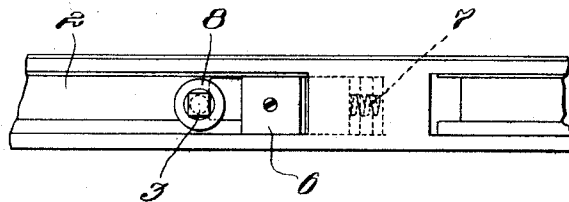


Fig. 2.



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STEM WINDING AND SETTING WATCH.

1,023,384.

Specification of Letters Patent.

Patented Apr. 16, 1912.

Application filed June 10, 1911. Serial No. 632,312.

To all whom it may concern:

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

This invention relates to those parts of stem winding and setting watches which have to do with the shifting of the winding stem from the winding to the setting position and back again, and is applicable to any watch of this character in which the movement is of the "natural-setting" type, that is to say, is so constructed that the winding stem if left free to move is moved outward into setting relation by means of a spring forming a part of the movement itself. In such a movement the parts remain in setting position until the movement is combined with its case and are then controlled as to winding and setting by means of suitable devices carried by and forming a part of the case, and my invention is intended to improve upon prior watch constructions having this mode of operation in certain respects which will hereinafter appear.

My improvements, while useful in connection with natural-setting watch movements generally, are particularly intended to be employed in connection with watches of the general character set forth in my prior Letters Patent No. 918,757, granted April 20, 1909, in which the usual pendant, bow and crown are omitted and provision is made for suspending the watch directly from the outer portion of a rotatable member or winding terminal connected to the winding stem, and I have accordingly illustrated a watch of this character in the accompanying drawings, in which:—

Figure 1 shows the upper portion of the watch case, partly in front elevation and partly in section, together with certain adjacent parts, and Fig. 2 shows the under side of the center of the watch case at the upper portion of the watch, as the same would appear if viewed from the interior of the case, looking upward.

In the drawings, 2 indicates the center of

the watch case in which the winding bar or stem 3 is mounted to rotate, the inner end of said stem being of angular formation and detachably fitted into the usual stem socket of the movement, while at its outer end it is secured to a rotatable terminal 4 which projects beyond the rim of the case and is there provided with an eye 5 by means of which the watch may be suspended on a chain or the like, substantially as set forth in my prior Letters Patent above referred to. The winding stem 3 and terminal 4, in addition to being rotatably mounted in the watch case, are also adapted to have a limited longitudinal movement therein, sufficient to provide for the shifting of the mechanism from winding to setting relation, and normally said stem and terminal are locked in their innermost position, which corresponds to the winding position of the parts of the watch movement, by means of a catch 6, mounted to slide in the center 2, and having an operating spring 7 behind it which tends to hold the front end of the catch against the stem 3, in which position it overlies an annular shoulder 8 formed on said stem. The catch 6 is provided with an operating head 9 projecting outward through the rim of the watch case and adapted to move in a recess 10 therein, which operating head preferably has a transverse groove 11 to receive the finger-nail of the user and thus facilitate the drawing back of the catch 6 against the pressure of the spring 7 when it is desired to unlock the stem 3 and permit its outward movement. This outward movement of the stem 3 is produced by means of a suitable spring, and in watches containing a natural setting movement, (the watch movement represented in the drawing being of this type,) such a spring is employed as a part of the usual winding and setting mechanism, the spring in question being shown at 12 in Fig. 1 and being arranged to operate a sliding plate 13, on which rests the lower or inner end of a pin 14 located beneath the winding stem 3, in such manner as to lift said plate, pin and stem and simultaneously move the clutch 15 in the opposite direction to bring it into the setting position.

The details of construction of the parts

just referred to are well known and therefore need not be further described, but when such a mechanism is combined with an ordinary watch case in the usual manner, the pin 14 is normally held in its innermost position, (as in Fig. 1,) by the usual sleeve contained in the pendant of the watch case. In the construction herein represented, however, this sleeve is omitted, so that the spring 12 will lift the pin 14 and the winding stem 3 whenever said stem and the terminal 4 are released and permitted to move outward by drawing back the catch 6.

From the foregoing description it will be evident that when the parts of the watch are in their normal position, shown in Fig. 1, said parts will be in winding relation and the watch may be wound in the usual manner by rotating the terminal 4. Whenever it is desired to set the watch the operating head 9 is drawn backward or away from the winding stem until the shoulder 8 is released from the restraint imposed upon it by the catch 6, whereupon the spring 12 will lift the plate 13, pin 14 and stem 3 and bring the parts into setting relation. After the watch has been set it is merely necessary to push the terminal 4 inward, whereupon the parts will be restored to the winding position and automatically locked in this position by the catch 6, which is forced backward by the beveled under side of the shoulder 8 and then thrown forward by the spring 7 as soon as said shoulder passes the free end of said catch.

A case provided with a winding stem and stem-locking mechanism constructed as above described is evidently adapted to receive the usual form of natural-setting watch movement without any alteration of the movement whatever, whether or not the usual pendant, bow and crown are replaced by means for suspending the watch directly from a winding terminal, and since the sleeve which is ordinarily utilized in a watch case for holding the stem of a natural-setting movement in winding position is not required in a case having my stem-locking mechanism, the space required to receive said sleeve is saved and the stem-receiving parts of the case may be correspondingly reduced in size, with a resulting improvement in their appearance.

The form of stem-locking mechanism above described is the one which I prefer to employ, as it is simple in construction and easily manipulated, but various other arrangements may be utilized for the same purpose without departing from my invention, which so far as I am aware is the first to dispense with the sleeve which has heretofore been employed for controlling the position of the winding stem in a watch having a natural-setting movement, and to utilize the tendency of said stem to move out-

ward when unrestrained for the purpose of bringing it into setting position.

I claim as my invention:

1. In a stem winding and setting watch, the combination of a sleeveless case, a natural-setting watch movement contained therein, and a catch member carried by the case and movable laterally into and out of retaining engagement with one side of the winding stem when the latter is in winding position, said catch member and stem being shaped to permit the stem to be pushed inward from setting position.

2. In a stem winding and setting watch, the combination of a sleeveless case, a natural-setting watch movement contained therein, a catch member carried by the case and movable laterally into and out of retaining engagement with one side of the winding stem when the latter is in winding position, said catch member and stem being shaped to permit the stem to be pushed inward from setting position, and means attached to the winding stem for suspending the watch.

3. In a stem winding and setting watch, the combination of a sleeveless case, a natural-setting watch movement contained therein, a winding stem mounted to rotate and to move inward and outward in the rim of the case and having an outwardly-facing abutment, and a spring-actuated catch member carried by the case and movable laterally into and out of positive locking engagement with the abutment when the winding stem is in winding position, said abutment and catch being shaped to force the catch backward by their engagement when the winding stem is moved inward from setting position.

4. In a stem winding and setting watch, the combination of a sleeveless case, a natural-setting watch movement contained therein, a winding stem mounted to rotate and to move inward and outward in the rim of the case and provided with an angular inner end adapted to enter the stem socket of said movement, and a spring-actuated catch member carried by the case and movable laterally into and out of retaining engagement with one side of the winding stem when said stem is in winding position, said catch member and stem being shaped to permit the stem to be pushed inward from setting position.

5. In a stem winding and setting watch, the combination of a sleeveless case, a natural-setting watch movement contained therein, a winding stem mounted to rotate and to move inward and outward in the rim of the case and provided with an angular inner end adapted to enter the stem socket of said movement, a spring-actuated catch member carried by the case and movable laterally into and out of retaining engagement with

one side of the winding stem when said stem
is in winding position, said catch member
and stem being shaped to permit the stem to
be pushed inward from setting position,
5 and means attached to said stem for sus-
pending the watch.

In testimony whereof, I have hereunto

subscribed my name this 2nd day of June,
1911.

HENRY W. MATALENE.

Witnesses:

COURTLAND E. HASTINGS,
E. A. TRUMPP.

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