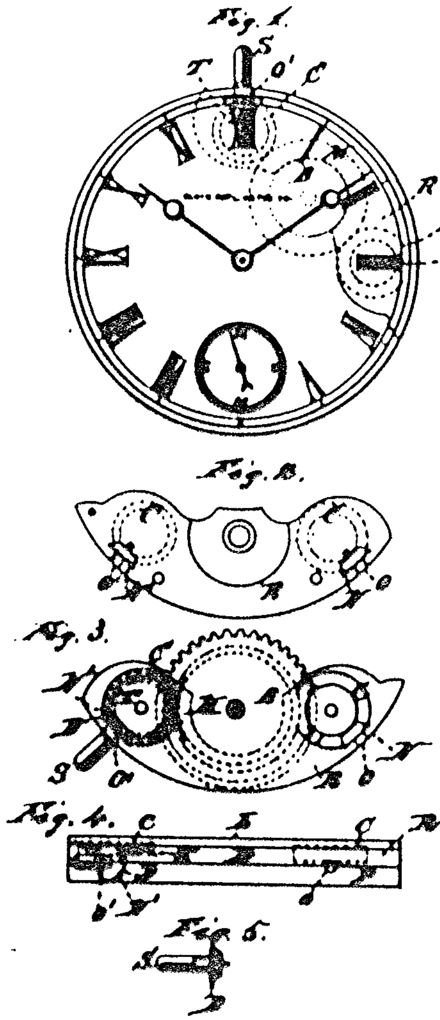
C. S. MOSELEY.

PLATES FOR STEM-WINDING WATCHES.

No. 185,867. Patented Jan. 2, 1877.



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2 Sheets—Sheet 2.

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Fig. 6.

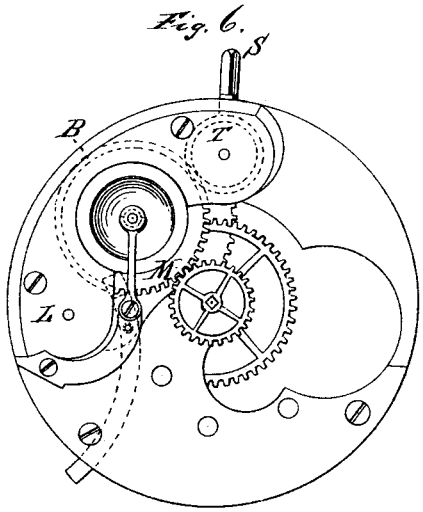


Fig. 7.

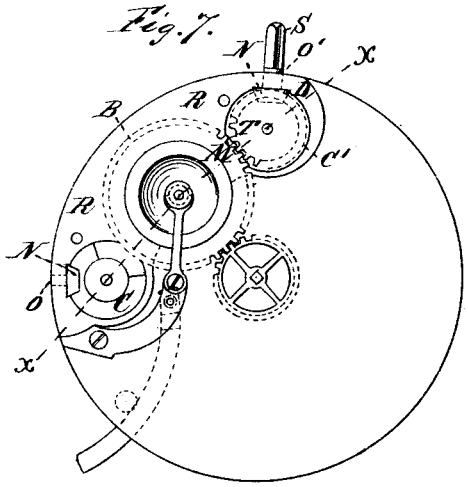
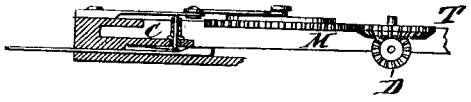


Fig. 8.



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UNITED STATES PATENT OFFICE.

CHARLES S. MOSELEY, OF ELGIN, ILLINOIS.

IMPROVEMENT IN PLATES FOR STEM-WINDING WATCHES.

Specification forming part of Letters Patent No. **185,867**, dated January 2, 1877; application filed December 6, 1876.

To all whom it may concern:

Be it known that I, CHARLES S. MOSELEY, of the city of Elgin, in the county of Kane and State of Illinois, have invented a new and useful Improvement in Watch-Movements, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 is a front view of the face of the watch, showing portions in dotted outline. Fig. 2 is a detail drawing of the bridge. Fig. 3 is a detail drawing of the bridge, showing the gear-wheels and cavities therein. Fig. 4 is a side view of a portion of my movement. Fig. 5 is a view of the winding-stem and beveled gear. Fig. 6 is a back view of the movement, with the stem, as in Fig. 1, at the twelve-o'clock mark, with the cap or plate in position. Fig. 7 is the same view with the plate or cap removed. Fig. 8 is a section on the line *x x* of Fig. 7.

Like letters in all the figures indicate like parts.

In a hunting-case stem-winding watch the pendent bow, and, consequently, the milled or roughened winding-button connected to the stem, is or should be opposite the three-o'clock point of the dial, while in an open-face watch the bow or button is or should be always placed opposite the twelve-o'clock point of the dial, and a watch-movement intended to be used in an open-face case is not adapted for a hunting-case without considerable reconstruction.

My invention consists in so forming my movement that it is adapted for either style of casing, and may be arranged for either without reconstructing or making over any of its parts.

To more fully explain the preferred construction which I adopt I will refer to the accompanying drawing.

The barrel, or that part of the movement which contains the mainspring, is shown at B, and its center is located midway between the two positions in which it may be desired to place the winding-stem S, here shown as occupying the twelve-o'clock or open-face position. The bridge R is continued a considerable distance around the circumference of the bottom pillar-plate, and on each side of the barrel, to and beyond either of the positions which may be occupied by the winding-stem S in open-face and hunting-case watches. Through this bridge I make the openings or holes for winding-stem S, as at O and at O′ of Fig. 3, which latter is occupied by the stem S. Such openings are placed, one at the position necessary for an open-face case, and one at the position necessary for a hunting-case. Within the bridge R, and in the proper relative position to the holes for the winding-stem, are two cavities, N and N′, formed wholly in the bridge, or partly in the bridge and partly in the plate P of the movement. Within one of these cavities, when the stem S is in position, the toothed wheel D, attached to the stem, may revolve. Above these last-mentioned cavities others are made, communicating with the former, being shown at C and C′, within either of which the intermediate toothed wheel T may be placed, being turned or revolved on a stud. This wheel T connects by its toothed faces the wheel D, carried by the stem, and the main winding-wheel M, which is connected to the spring within the barrel B by a peculiar device. The main winding-wheel M is loose on the spindle; it can rise and fall thereon, and could also turn in either direction were it not that when turned in one direction it comes in contact with a series of depressions, or rather a horizontal ratchet attached to the spindle. Another horizontal ratchet, the reverse of the one last mentioned, is formed in the bottom of the main winding-wheel, and therefore when the wheel is turned or revolved in one direction it turns or carries with it the lower ratchet device, which is rigidly connected to the spindle which coils the spring when turned. When the main winding-wheel is turned backward it will communicate no motion to the spindle, but will simply rise and fall, the inclines of the two ratchet devices slipping past one another.

Some other form of ratchet or connecting device might be used, if desired, the one here mentioned being considered the best, however.

Over these cavities, and over the wheel T, which occupies one of them, I fasten or otherwise attach a plate, L, simply as a guard or

cover to close up the unoccupied cavities, and to keep the intermediate wheel T in position; but I may make this plate or cover only large enough to protect the cavity unoccupied, holding the intermediate wheel T in position by a screw-headed arbor screwed into the bridge, or in any other well-known way.

Imagine that my movement is in the position shown in the drawing adapted for an open face; force applied to the stem S will cause the toothed wheel D to turn, which gears into the intermediate wheel T, and which, in its turn, gears into the main winding-wheel, thus transmitting the effect of the operator's fingers from the button on the winding-stem to the spring. The movement being in this condition, it is to be placed in a hunting-case. The plate L is removed, and the intermediate wheel T may also be taken out. The bridge R can then be readily removed by taking off the main winding-wheel M, and the stem and its toothed wheel is then transferred from the position it occupied at twelve o'clock, and is placed in the cavity at three o'clock. The two cavities being alike, the bridge R is then replaced, also the main winding-wheel, and the intermediate toothed wheel T is transferred into the cavity C of the bridge R, which is substantially similar to the cavity C′, from which it was taken, and gears into the wheel D on the stem, and into the main winding-wheel M, in the same manner as before the transfer, except that it is on the other side of the wheel M. The plate or cap is now put on, covering the bridge, as shown in the drawing, or covering only the cavity left vacant by the transfer of the intermediate wheel T from the cavity C′ to the other cavity, C.

This is all that is necessary to complete the change, and the movement is thus adapted for a hunting-case having the stem opposite three o'clock of the dial.

Of course the reverse of this operation could be performed with equal facility. By the construction here shown and described, I produce a movement which, simply by the change in the location of certain parts, is adapted for either style of casing, making it unnecessary to keep on hand two styles of movements for the two styles of cases.

By locating my barrel B and winding-wheel midway between the two positions which may be given to the stem S, I am enabled to use the intermediate wheel T on either side of the main winding-wheel M.

It is possible that my invention might be used, and that still the barrel might not be placed exactly midway between the two positions of the winding-stem—for example, a small pinion being fastened to the bridge on one side of the main winding-wheel M, which pinion would, when the stem occupied one of the two positions, effect the union between the intermediate wheel T and the main winding-wheel M, thus allowing the barrel to be placed out of the midway position a distance equivalent to the diameter of the pinion, and still permitting the intermediate wheel T to operate on either side, irrespectively.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A watch-movement having the barrel placed midway between the figures denoting twelve and three o'clock on the dial, with a bridge projecting from the barrel on either side, to and beyond the two figures, respectively, for the purpose herein set forth.

2. In a watch-movement, two sets of cavities and holes, counterparts one of the other, arranged on each side of the barrel, for the purposes herein stated.

3. In a watch-movement, a barrel and main winding-wheel, combined with a bridge having openings on each side of the barrel and winding-wheel, with a single operative intermediate wheel, as described.

CHARLES S. MOSELEY.

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