(No Model.)

A. S. GALENTINE.

STEM WINDER MECHANISM FOR WATCHES.

No. 314,288. Patented Mar. 24, 1885.

Fig. 3.

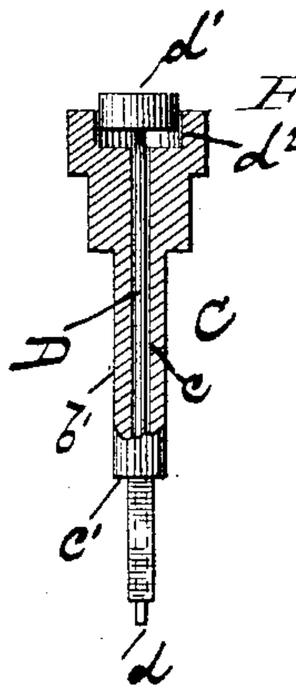


Fig. 1.

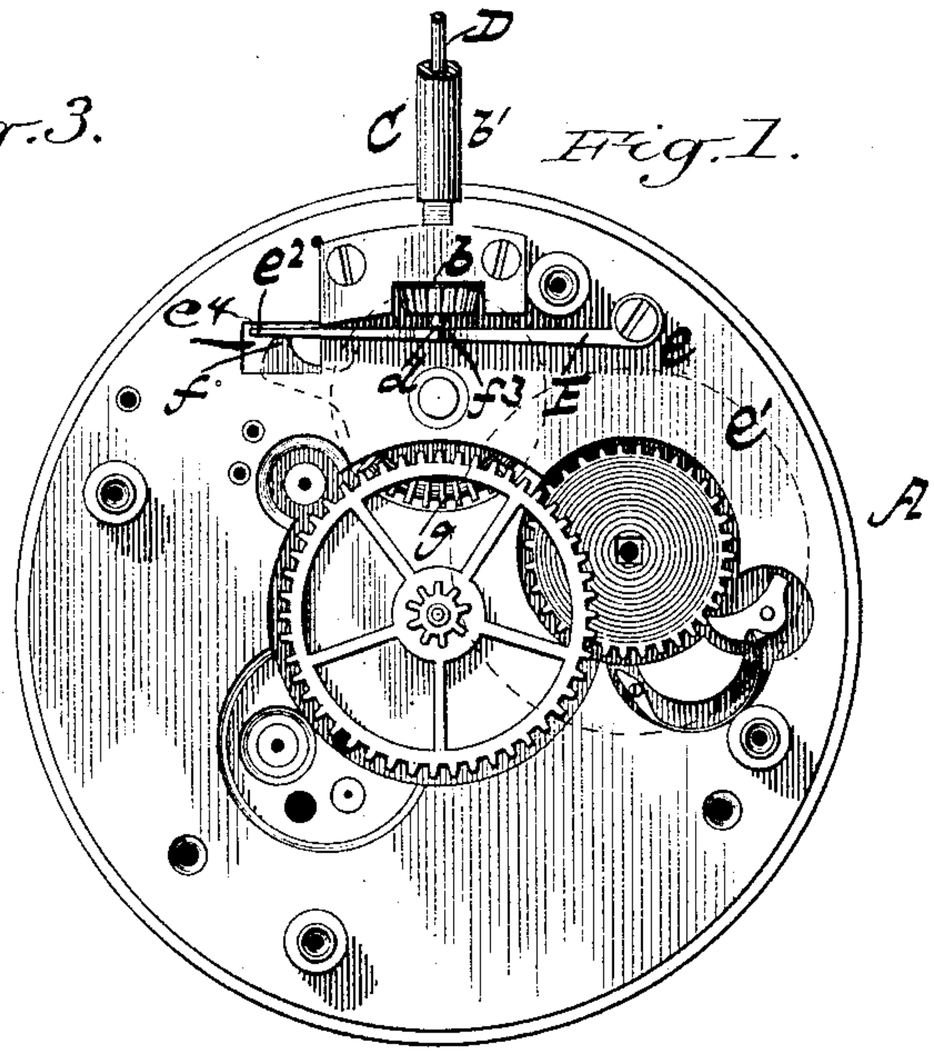
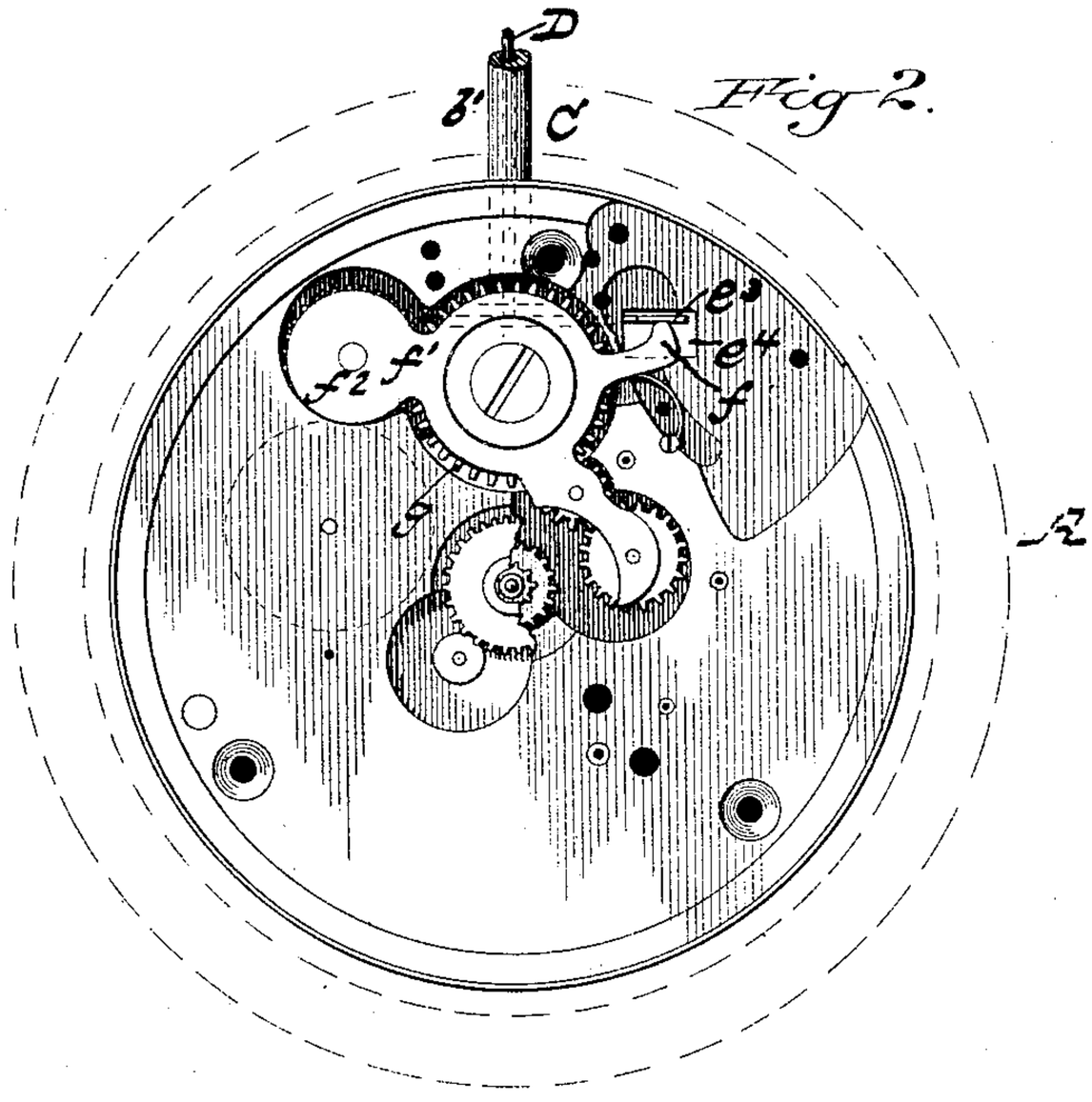


Fig 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALLEN S. GALENTINE, OF VALPARAISO, INDIANA, ASSIGNOR OF ONE-HALF TO FRANK M. AXE, OF SAME PLACE.

STEM-WINDER MECHANISM FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 314,288, dated March 24, 1335.

Application filed August 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALLEN S. GALENTINE, a citizen of the United States, residing at Valparaiso, in the county of Porter and State of Indiana, have invented certain new and useful Improvements in Stem-Setting Watches, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to improvements in stem-winding watches; and it consists in the construction and novel arrangement of the same, all as will be hereinafter more fully explained.

The annexed drawings, to which reference is made, fully illustrate my invention, in which Figure 1 represents a rear view of the works of a watch with the outer plate removed. Fig. 2 is a front view of the same with the dial removed; and Fig. 3 is a side view, part sectional, of the pin and stem detached from the watch.

Referring by letter to the accompanying drawings, A designates the housing, in which the works of the watch are placed, and the stem of the watch-case is provided with a perforation which extends from the outer end thereof to the inner face of the annular rim of the casing and is in a line with the rectangular opening formed in the pinion *b*, which operates the setting and winding of the watch.

C represents the operating stem or key, which is provided with a central vertical perforation, *c*, and a cylindrical body, *b'*, the inner end of which is rectangular in cross-section and shouldered at *c'* at the lower end of the cylindrical portion.

Within the perforation or passage of the stem B is an operating-pin, D, which is provided at one end with a plain point, *d*, and at the opposite end with the push button or head *d'*, that fits within the recess d^2 in the upper end of the stem C, and this push-pin is designed to be longer than the length of the stem aforesaid.

E indicates a spring-arm, the inner end, *e*, of which is rigidly secured to the pillar-plate *e'*, and the outer free end, e^2, is provided with a lip, e^3, projecting at right angles to the arm, and extending through a slot, e^4, (made in said plate,) and rests upon the point *f* of the pivoted plate *f'*, which has attached thereto the several gear-wheels and pinion, which are thrown in and out of engagement with running mechanism of the watch, and this plate *f'* is pivoted to the pillar-plate *e'*, as shown at f^2. The spring-arm aforesaid is arranged below the pinion, and the push-pin D by its point rests gently upon the middle portion, f^3.

It will be observed by reference to the annexed drawings that in order to set the hands of the watch the operator presses upon the push-pin D, which, by its lower end, forces the spring-arm downwardly upon the point *f*, and thus turning the plate *f'* upon its pivot f^2, thereby causing the pinion *b* to mesh with the pinion *g* on the arbor, and by turning the stem when the pressure is on said push-pin the hands of the watch can be set forward or backward, as desired. At the same time when the parts are connected to set the hands the winding mechanism is disconnected. After the hands are set and the push-pin is released from pressure, and assumes its normal position, the gearing above mentioned separates by means of the spring, forcing the plate to turn on its pivot, and when in this position the watch can be wound up by turning the stem C, thus operating the pinion *g*, and by means of which the train of gearing is operated in winding up the watch.

It will be seen that the winding of the watch and setting the same are entirely independent of one another, and both of the movements cannot be accomplished exactly at the same time, and the button or head of the push-pin lies within the recess of the stem, and therefore cannot be accidentally struck or come in contact with obstructions.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

In a stem winding and setting watch, the combination, with the pivoted plate *f'*, provided with the point *f*, stem C, casing A, plate *e'*, provided with the opening e^4, of the

spring-arm E, pivoted at *e*, and provided at its end, e^2, with the lip e^3, passing through the opening e^4, and engaging the point *f*, the push-pin D, adapted to engage by its point *d* said arm, whereby the train of gearing on the plate *f'* is thrown in and out of engagement, substantially as described, and for the purposes set forth.

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

ALLEN S. GALENTINE.

Witnesses:
FRANK M. AXE,
ELIJAH C. WOOD.