

No. 756,459.

PATENTED APR. 5, 1904.

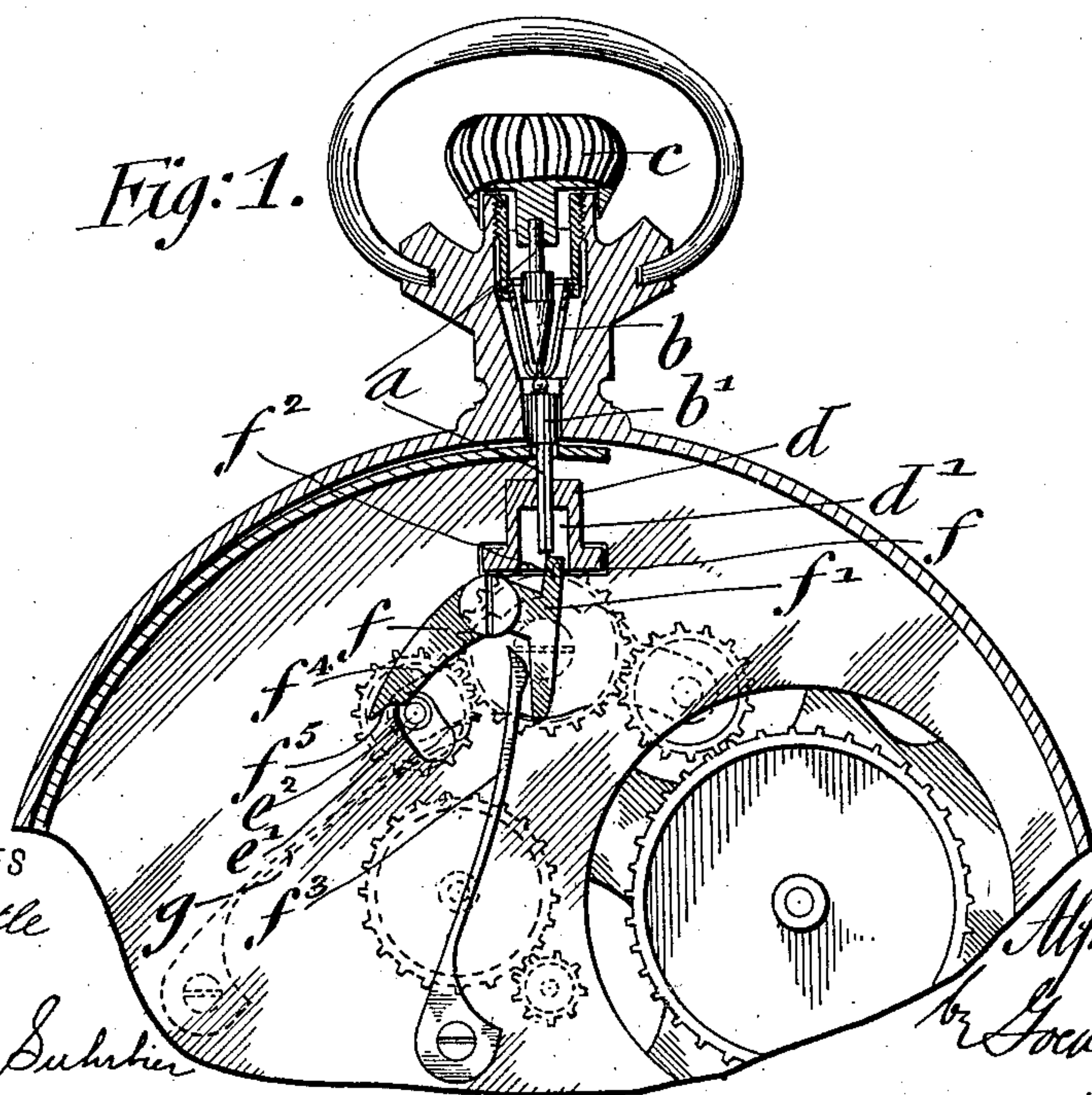
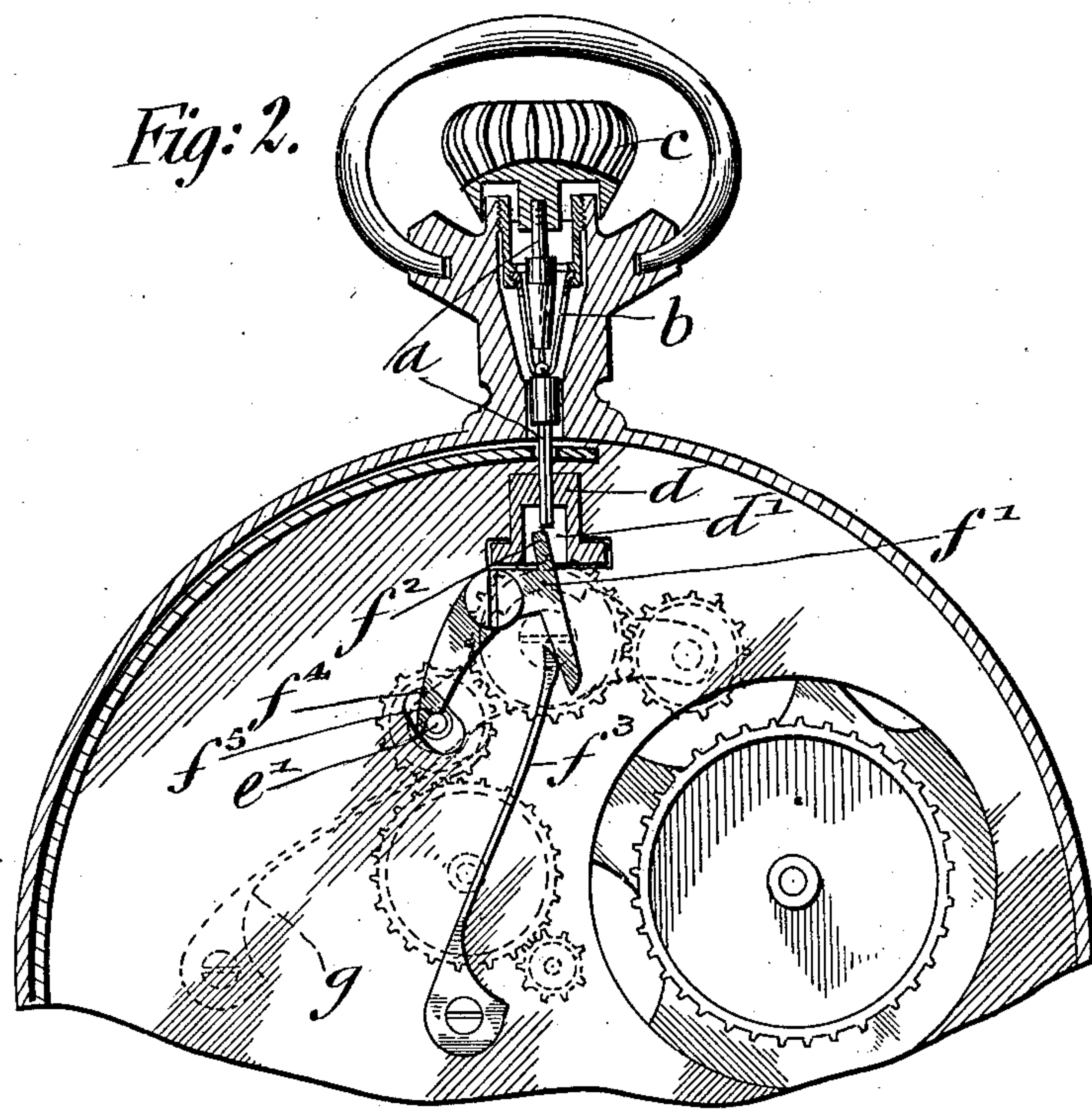
A. BLANC.

## STEM WINDING AND SETTING WATCH.

APPLICATION FILED AUG. 14, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES

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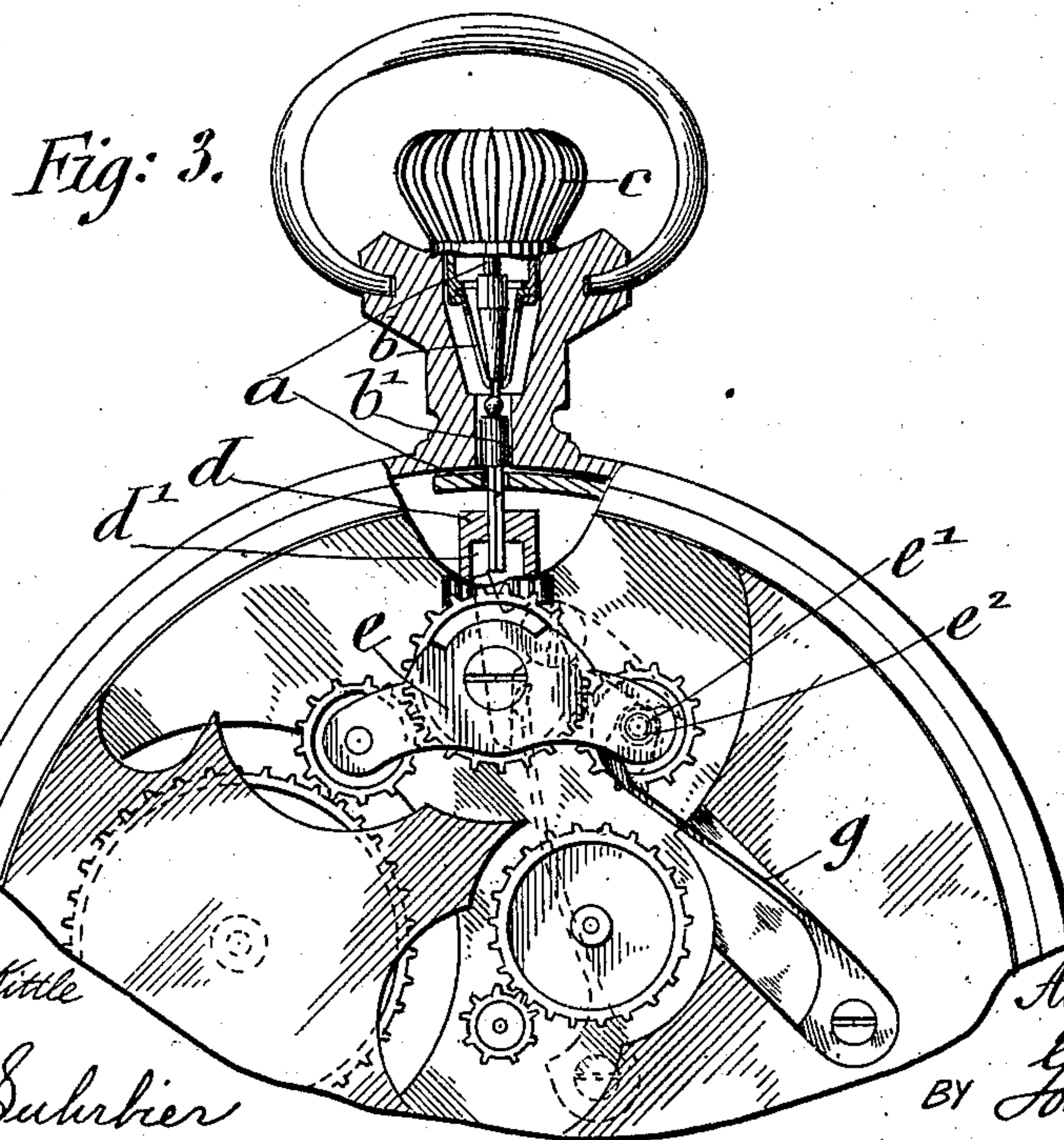
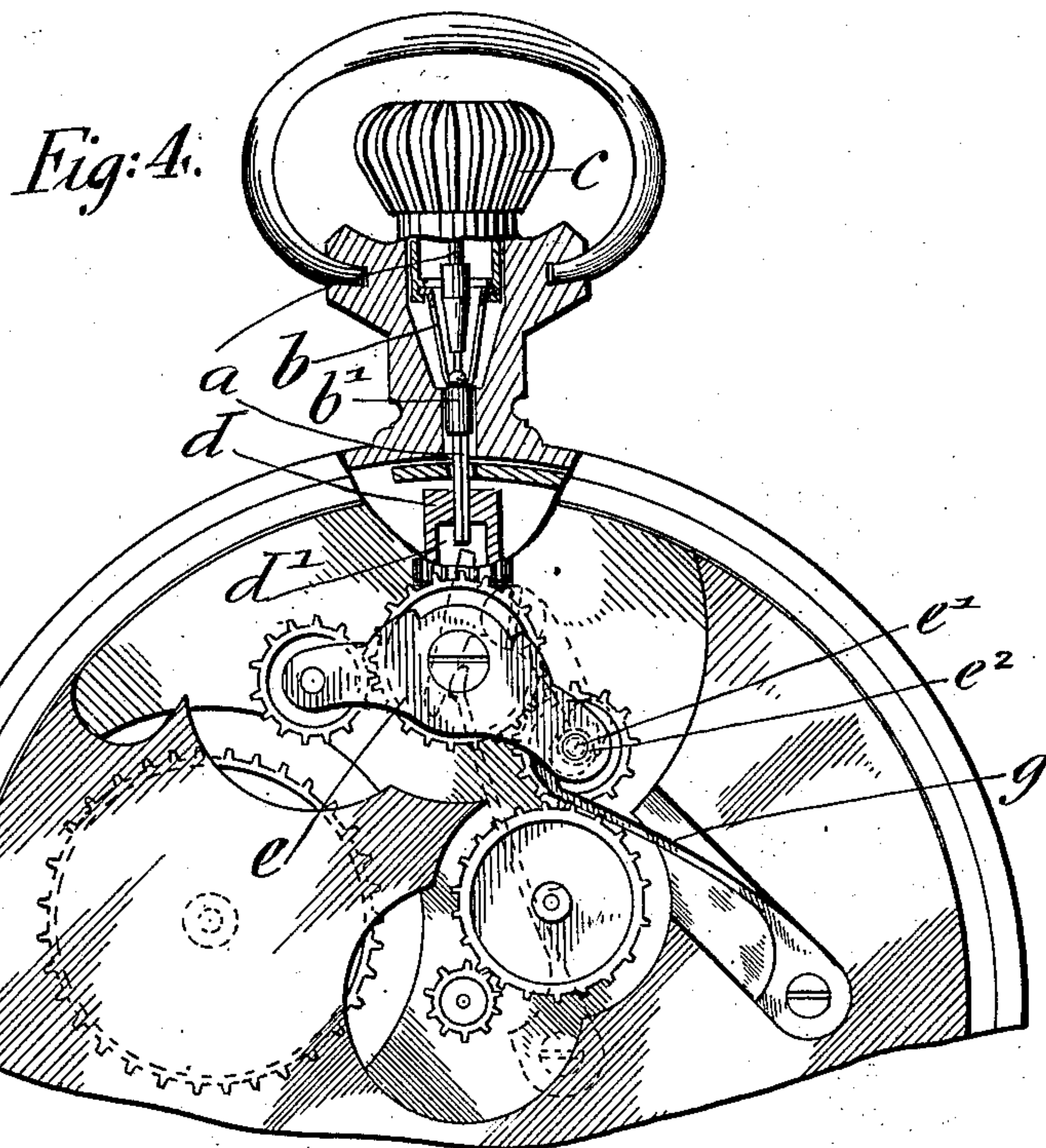
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# UNITED STATES PATENT OFFICE.

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OF NEW YORK, N. Y.

## STEM WINDING AND SETTING WATCH.

SPECIFICATION forming part of Letters Patent No. 756,459, dated April 5, 1904.

Application filed August 14, 1903. Serial No. 169,490. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED BLANC, a citizen of the United States, residing in New York, borough of Brooklyn, 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 relates to an improved stem winding and setting watch which can be readily set from its normal winding position into position for setting the hands of the watch, the stem winding and hand setting devices being so arranged as to permit the ready fitting of the movement into any standard case and the removal of the same from the sleeve and bar attachment of the case; and for this purpose the invention consists of a stem winding and setting watch in which the setting-pinion is provided with an interior cavity, a vertically-shiftable winding-bar guided in said pinion, a fulcrumed and spring-actuated shifting lever provided with an upwardly-projecting lug extending into the cavity of the winding-pinion in line with the winding-bar, while the other arm engages a pin on the yoke supporting the winding and setting gears, said shifting lever and yoke being acted upon by springs for being returned into normal position with the winding mechanism in mesh with the main-spring-casing; and the invention consists, further, of certain details of construction which will be fully described hereinafter and finally pointed out in the claim.

In the accompanying drawings, Figure 1 represents a back view of a watch-movement, showing the stem-winding attachment. Fig. 2 is a back view of the watch-movement, showing the parts placed in position for setting the hands; and Figs. 3 and 4 are front views of the movement with the dial removed, showing the yoke with its winding and setting gears in corresponding position to Figs. 1 and 2.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, *a* represents the stem of my improved stem winding and setting watch. The stem is attached to the case in the usual manner and carries a crown *c* at its upper end. On the winding-bar is ar-

anged a collar *b'*, which engages a spring *b* for locking or releasing the front cap of the watch. The lower end of the winding-bar *b* is made of square shape and engages a square bore in the cylindrical portion of a winding-pinion *d*, which is provided with an interior cavity *d'*. The winding-pinion engages the setting-wheel of a winding and setting train of gear-wheels, which is supported on the usual yoke *e*. Below the winding-pinion *d* is arranged on the top plate of the movement a fulcrumed lever *f*, one arm, *f'*, of which is provided at its upper end with a lug *f''*, that extends into an interior cavity of the winding-pinion *d* in line with and so as to connect with the winding-bar. A spring *f'''* bears on the lower end of arm *f'* and serves to rock the lever *f* when the crown *c* is withdrawn, and thereby shift the yoke from the winding to the setting position. The left-hand arm *f''* of the fulcrumed lever *f* is provided with a recess *f'''* at its upper end, which engages a projecting pin *e'* on that end of the yoke *e* on which the hand-setting gear-wheel is located, said pin passing through a slot *e''* in the top plate, so as to project into the path of the arm *f''* of the fulcrumed lever *f*. The yoke is also acted upon by a spring *g* at the hand-setting end of the same, said spring tending by its tension to return the yoke into position, so that the winding gear-wheel is in mesh with the winding devices.

When the fulcrumed lever *f* is in normal position, its lug is vertically below the lower square end of the winding-bar, so that when the winding-bar is pulled in outward direction, as shown in Fig. 2, the lever *f* is turned on its fulcrum by the tension of the spring *f'''*, so that the recessed end of the lever *f* engages the pin *e'* of the yoke and moves the winding gear-wheel out of engagement with the winding mechanism and the hand-setting gear-wheel of the yoke into engagement with the gear-wheels that transmit motion to the hands, as shown in Figs. 2 and 4.

The watch is wound up by the winding-bar, winding-pinion, and the winding-train of gear-wheels of the yoke in the usual manner. When it is desired to set the hands, the



crown is pulled out, so that the winding-bar is shifted in upward direction, the lug of the fulcrumed lever *f* following the motion of the winding-bar by the action of its spring.

5 The lever *f* is thereby turned on its fulcrum, so that it moves the yoke on its fulcrum out of mesh with the winding devices, while its hand-setting gear-wheel is placed in mesh with the hand-setting train of gear-wheels. The

10 hands are then set by turning the crown in the usual manner. As soon as the hands are set the crown is pushed down and the parts are returned again into their normal position in mesh with the mainspring-winding mechanism, the winding-bar being retained in position by the usual spring-sleeve acting on a collar on the winding-bar, as shown in Figs. 1 and 3. The winding and hand-setting action is accomplished in the most reliable manner by the setting of the fulcrumed lever and yoke under the influence of the winding-bar and their springs.

The mechanism employed in my improved stem winding and setting watch is of extreme

25 simplicity. It dispenses with the separate push-piece or plunger which was heretofore required in most stem-winding watches between the winding-bar and setting-levers. It substitutes one fulcrumed and spring-actuated

30 shifting lever for the different levers heretofore employed and permits the convenient fitting of the movement into the ordinary standard watchcases and its removal from the same, as the winding-bar can be readily

35 separated from the crown and the movement and replaced without interfering with the

stem-winding and hand-setting mechanisms. The fulcrumed setting-lever has full play in the cavity of the winding-pinion and is always within the control of the winding-bar, so as to be shifted from the winding position into the hand-setting position, and vice versa.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

In a watch, the combination, with a winding-gear, a setting-gear and a stem, of a pivoted yoke having a gear on its pivot, a gear on each end of the yoke and in mesh with said gear, a winding-pinion having an axial bore and a gear portion, the stem having a sliding engagement with the pinion but arranged to rotate the pinion, said gear portion meshing with the gear on the yoke-pivot, a pivoted three-arm lever having one arm extending into the bore of the pinion in engagement with the end of the stem, a pin on the yoke arranged to engage a second arm on the lever, a spring bearing on the yoke and tending to retain it with its gears meshing with the winding-gear, and a spring bearing on the third arm of the lever and arranged to rock the same when the stem is withdrawn and thereby rock the yoke against the force of said spring and bring the setting-gears into engagement, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

ALFRED BLANC.

Witnesses:

PAUL GOEPEL,  
C. P. GOEPEL.