

(Model.)

2 Sheets—Sheet 1.

L. AEBY.

STEM WINDING WATCH.

No. 329,611.

Patented Nov. 3, 1885.

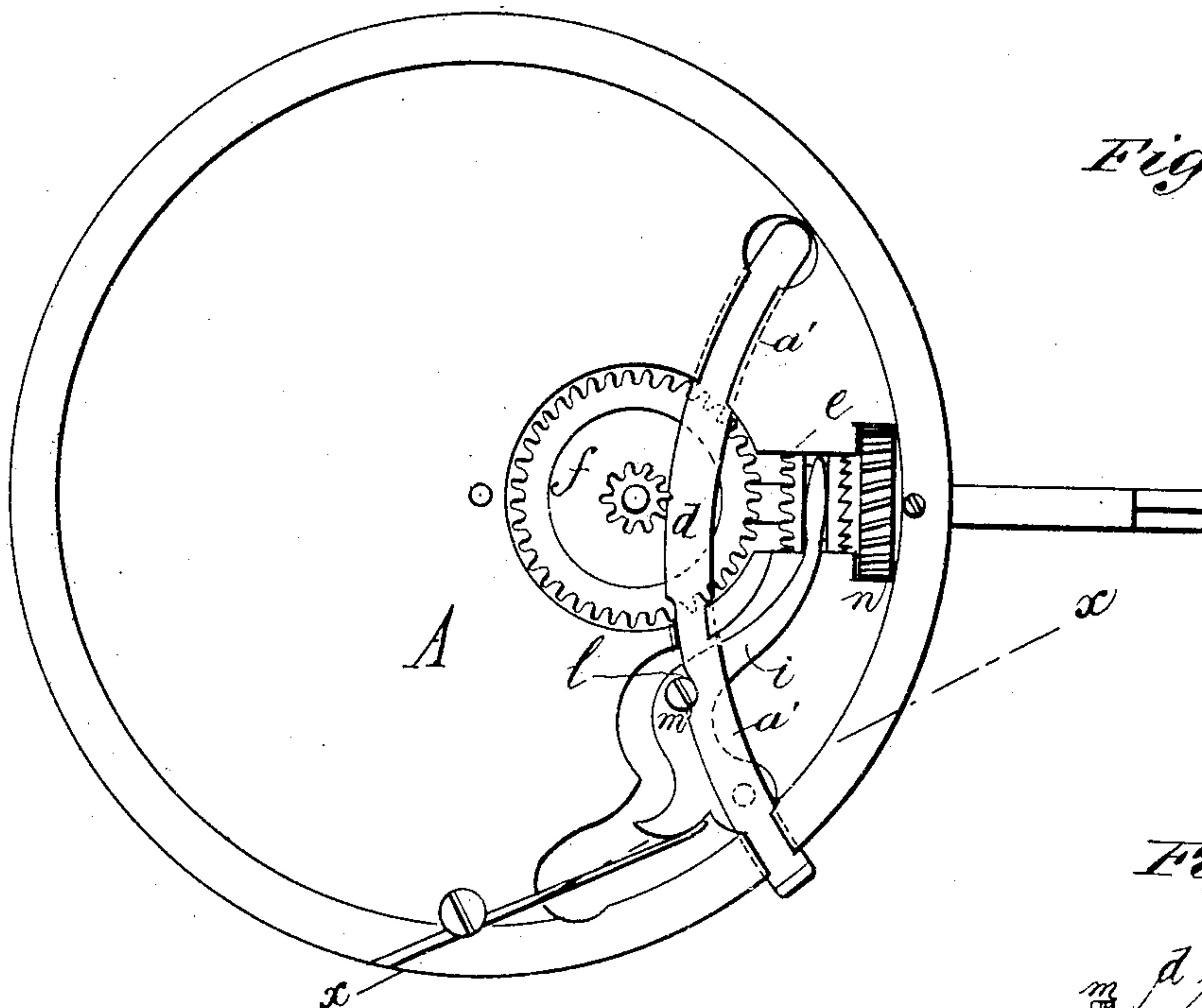


Fig. 1

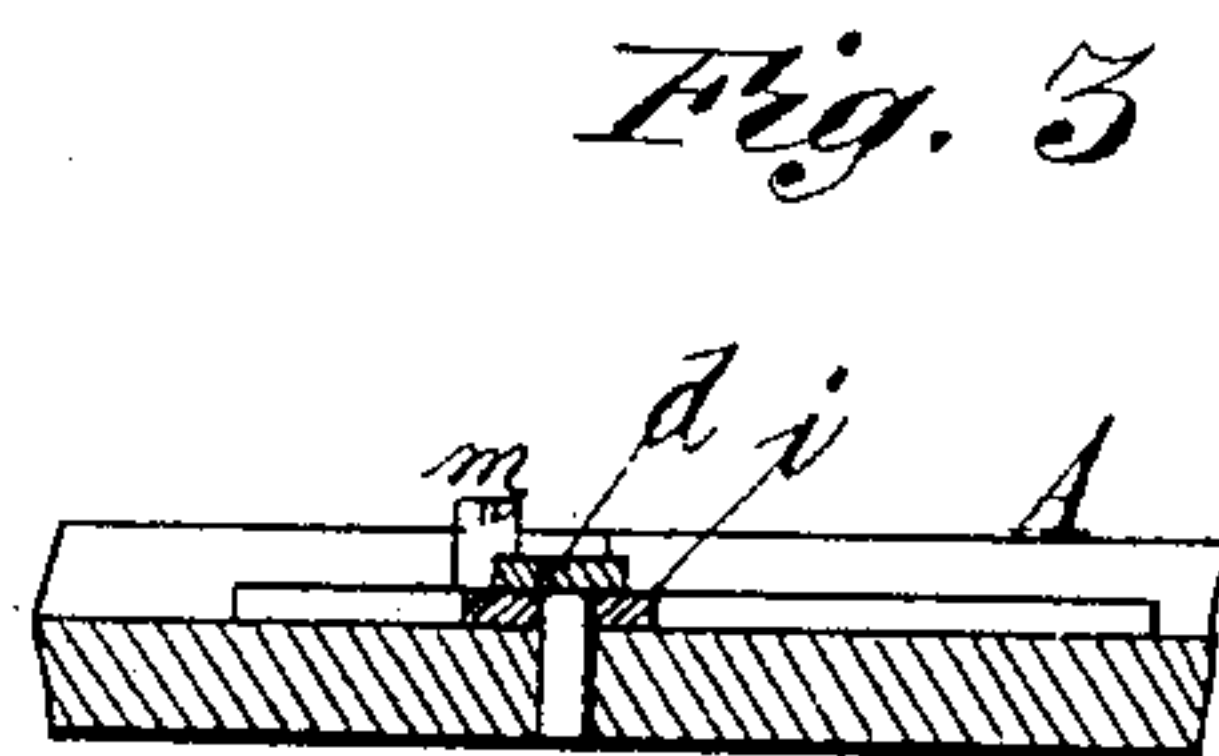


Fig. 3

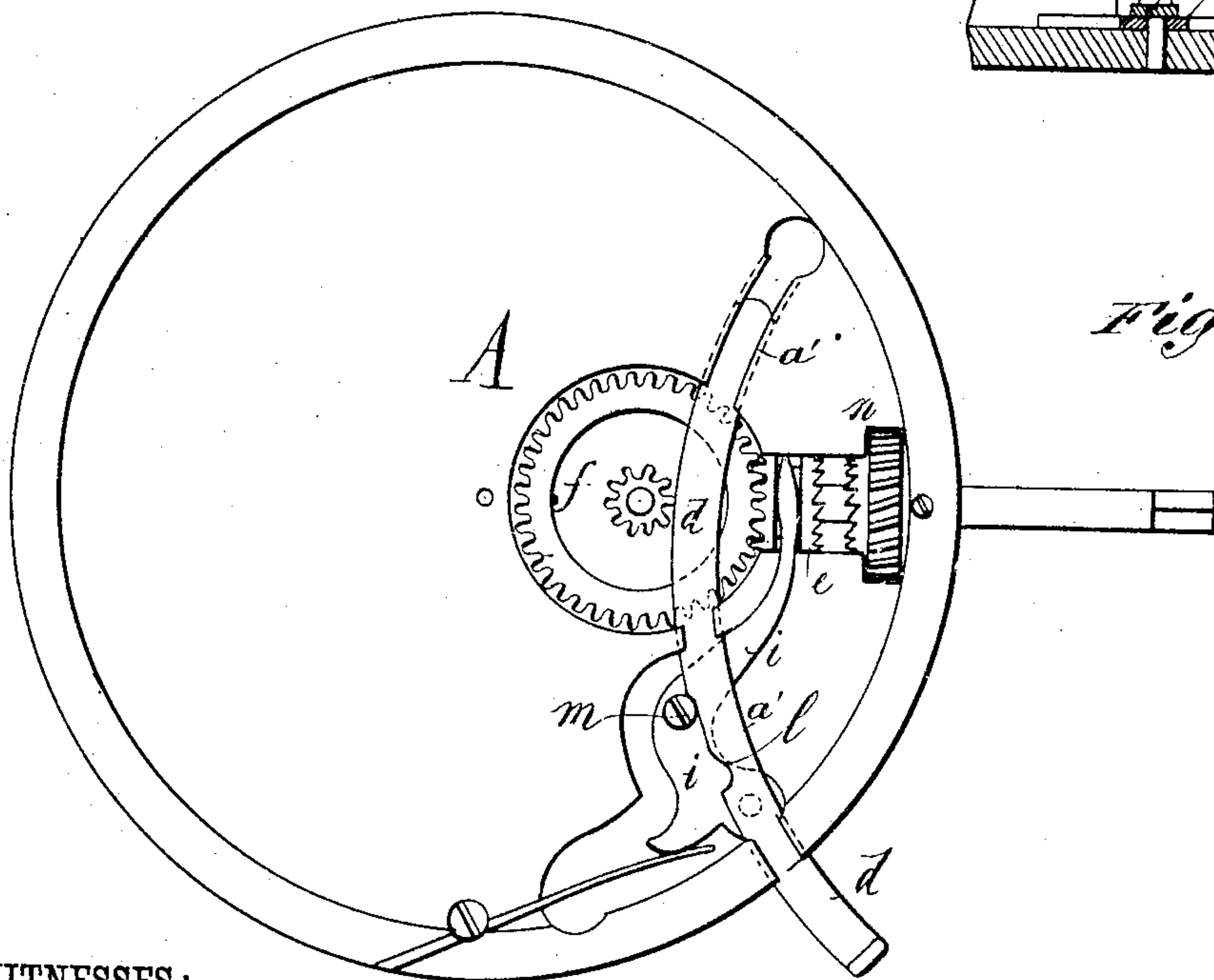


Fig. 2

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Fig 4.

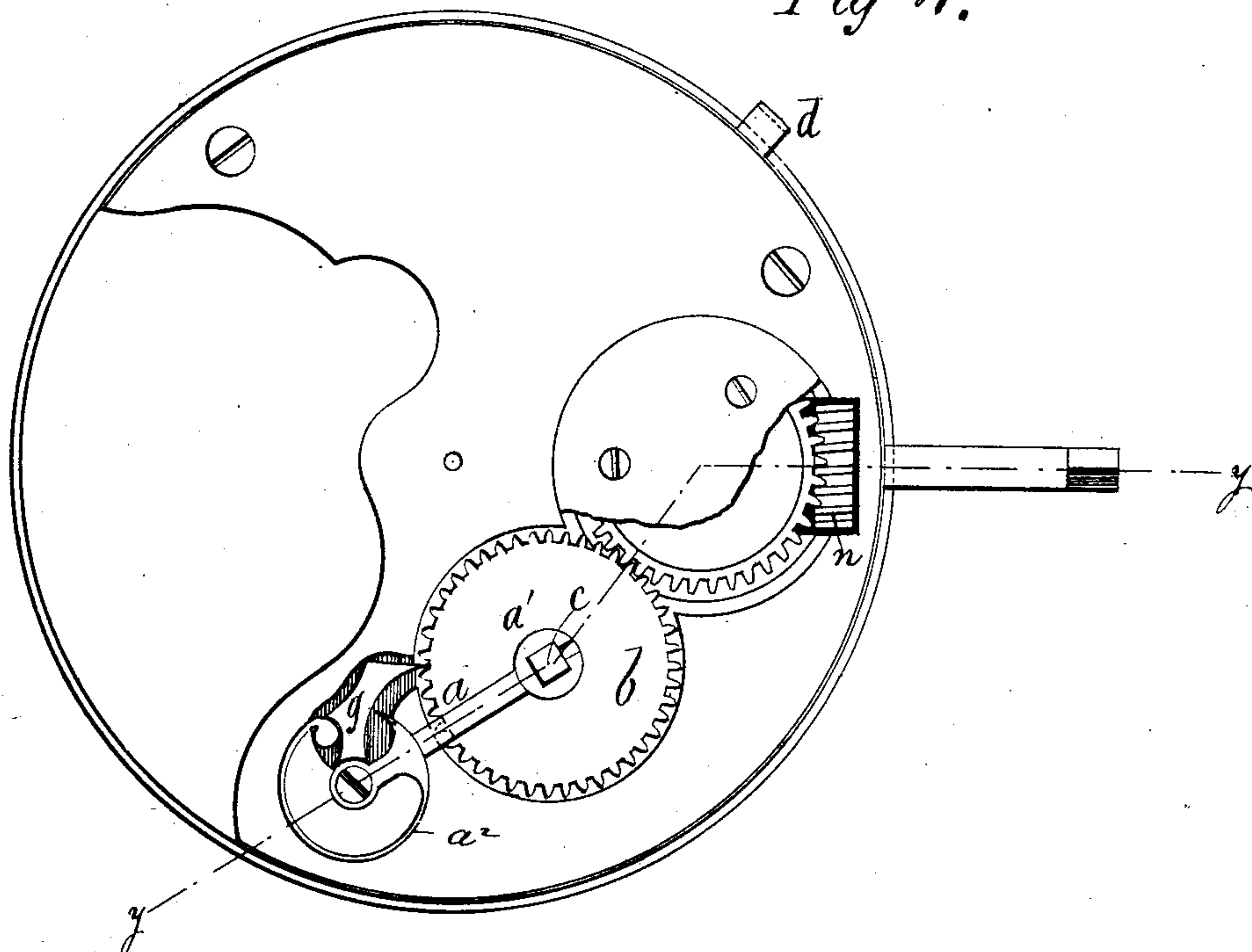
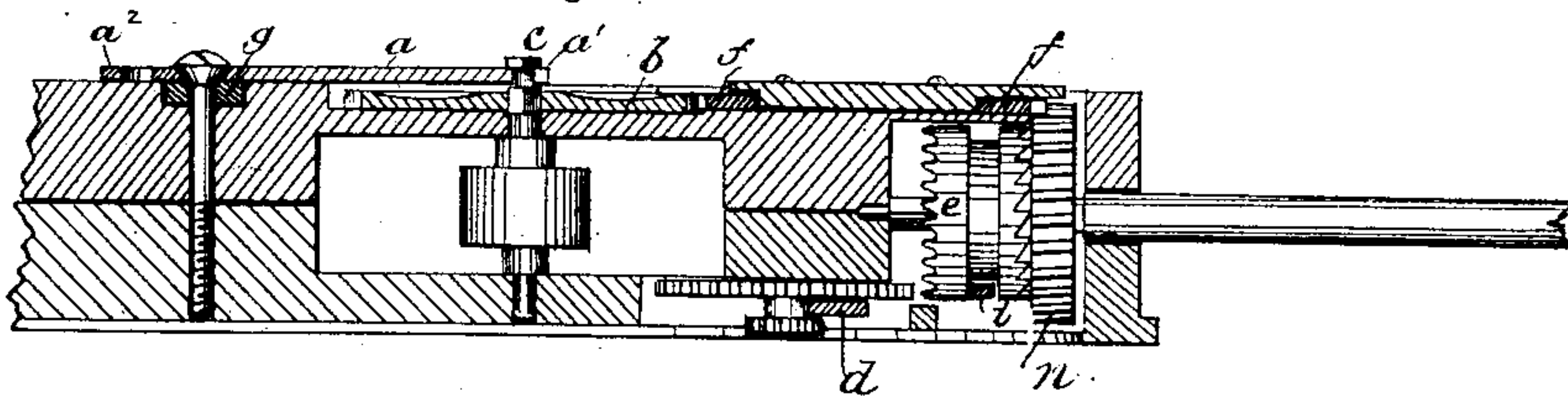


Fig 5.



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UNITED STATES PATENT OFFICE.

LÉO AEBY, OF MADRETSCH, NEAR BIENNE, SWITZERLAND.

STEM-WINDING WATCH.

SPECIFICATION forming part of Letters Patent No. 329,611, dated November 3, 1885.

Application filed July 18, 1884. Serial No. 138,116. (Model.)

To all whom it may concern:

Be it known that I, LÉO AEBY, of Madretsch, near Bienne, Switzerland, have invented a new and useful Improvement in Stem-Winding Watches, of which the following is a full, clear, and exact description.

The object of my invention is to simplify the construction of stem-winding watches by dispensing with the bridge and other parts; and it consists in a novel construction whereby certain parts are given double functions, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a face view of a watch-plate with the improved devices. Fig. 2 is a similar view showing the ratchet-pinion engaged with the minute-wheel. Fig. 3 is a section on line $x x$ of Fig. 1, and Fig. 4 is a face view of the reverse side of the plate. Fig. 5 is a section on line $y y$, Fig. 4.

The pivoted piece or lever i , the grooved ratchet-pinion e , engaged by lever i , and the minute-wheel f are of ordinary construction and arrangement, except that the lever is changed in form to adapt it to the improvement.

d is a curved piece fitted in undercut grooves a' , formed in plate A , so that it lies upon the minute-wheel f and retains the same in place. The piece d projects at the edge of the watch-plate, and is loose in the grooves, so that it can slide endwise, the outer end having a projection for use in moving the piece or slide, and its convex edge is notched at l , and bears against a screw, m , on lever i . By this construction, when slide d is pushed inward, the deeper portion of the notch allows the lever i to be moved by its spring and pinion e , engaged with the ratchet on worm-wheel n of the winding mechanism, and when slide d is pulled out it moves the lever by contact with screw m , thereby shifting the pinion into engagement with minute-wheel f . A shoulder at the end of notch l limits the movement of the slide.

Referring now to Fig. 4, b is the ratchet-wheel of the winding mechanism upon the barrel-arbor c , and g is the click or pawl. a is a piece attached to the plate by the pivot-screw of the click, and having a forked outer

end, a' , that engages a groove in arbor c above the hub of wheel b , so that the piece holds the wheel down. At its pivoted end the piece a is formed as a spring, a^2 , that bears on click g .

By applying the slide d and the piece a , as described, they both have double functions, and the bridge, screws, and nut usually required to retain the parts are dispensed with.

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

1. In a stem-winding watch, the combination, with the barrel-arbor, ratchet-wheel thereon, and a click, of the piece a , attached to the plate by the pivot of the click and having its outer end engaging the said arbor, substantially as described.

2. In a stem-winding watch, the combination, with a grooved barrel-arbor, a ratchet-wheel thereon, and a click, of the piece a , attached to the plate by the pivot of the click, having a forked outer end, and formed with a spring at its inner end, substantially as herein shown and described.

3. In a watch, the piece a , having the outer forked end, a' , and formed with a spring, a^2 , at its inner end, whereby the said piece is made to serve as the click-spring and to hold the ratchet-wheel in place, as set forth.

4. In a stem-winding watch, the combination, with a sliding ratchet-pinion and a lever engaging therewith, of a slide for operating said lever, substantially as herein shown and described.

5. In a stem-winding watch, the combination, with the minute-wheel f , a worm-wheel n , on the stem, a sliding ratchet-wheel, e , on said stem, and a lever, i , engaging said ratchet-wheel, of the slide d , engaging said lever i , substantially as herein shown and described.

6. In a stem-winding watch, the combination, with the plate having undercut grooves a' , of the curved piece d , moving and held in the grooves a' , substantially as herein shown and described, whereby the said curved piece is made to serve both as a slide and a bridge, as set forth.

LÉO AEBY.

Witnesses:

FR. LEHMANN,
H. LORIUS.