

C. V. WOERD.

Watch.

No. 67,692.

Patented Aug. 13, 1867.

FIG. 1

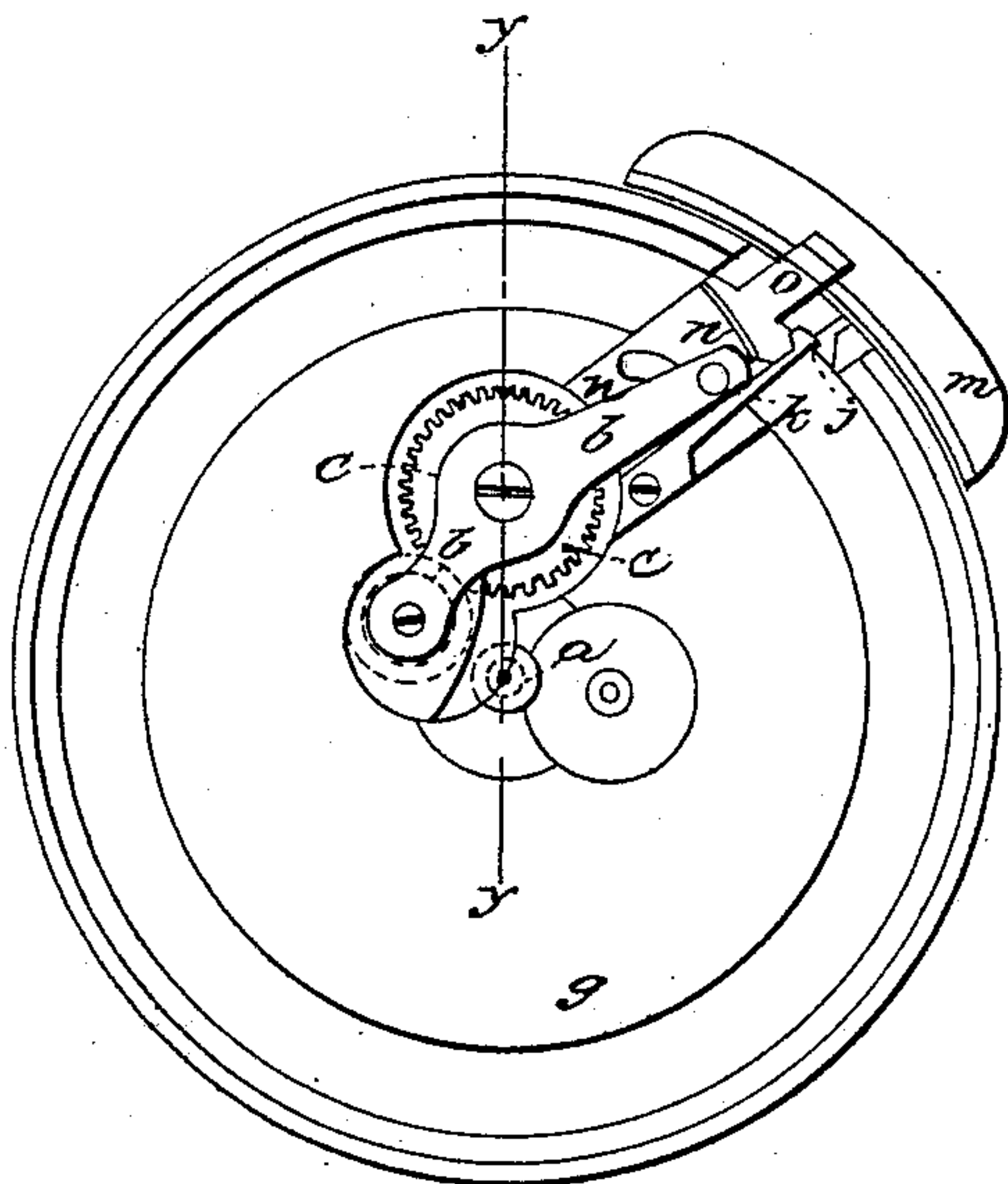


FIG. 2

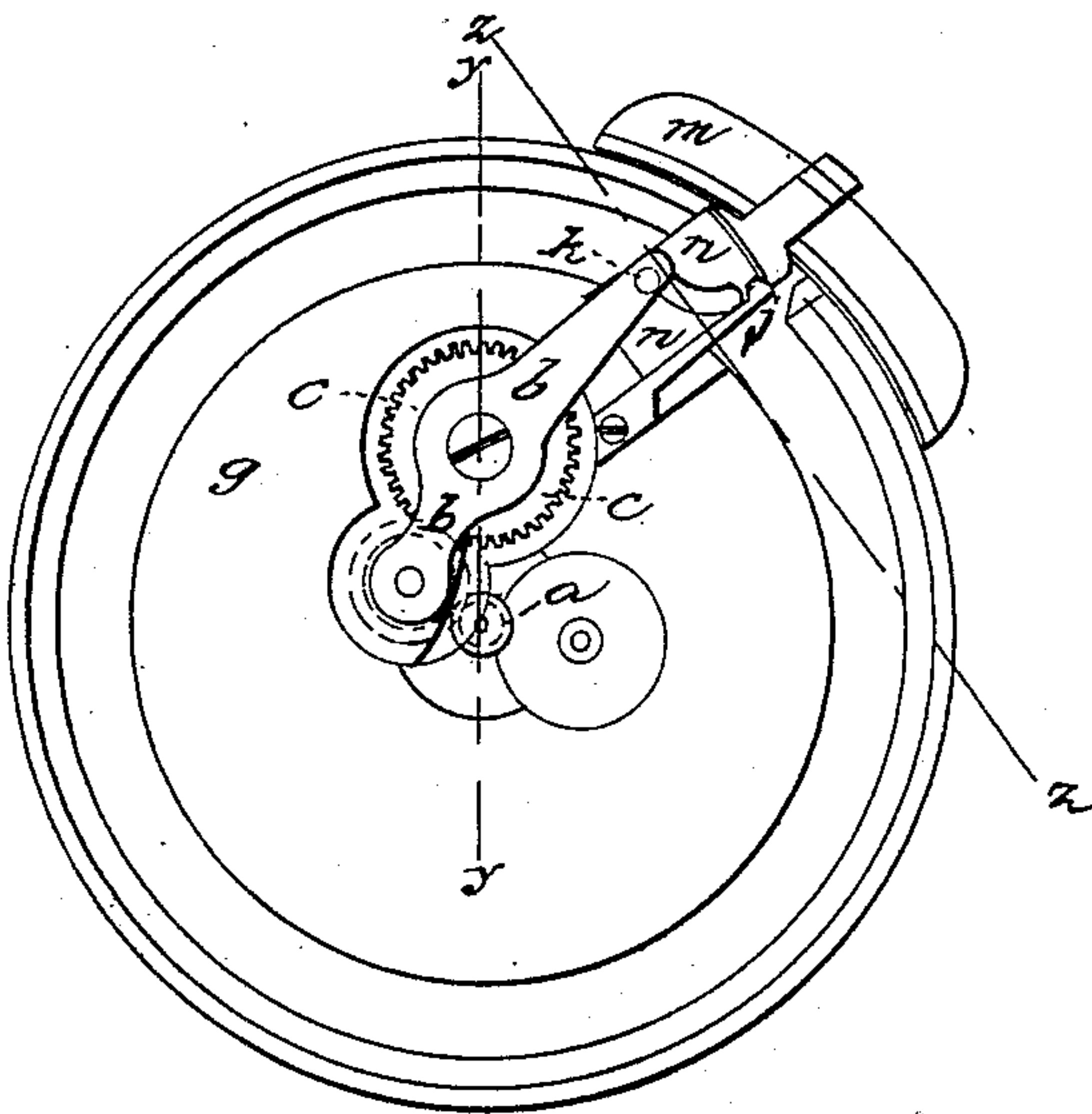
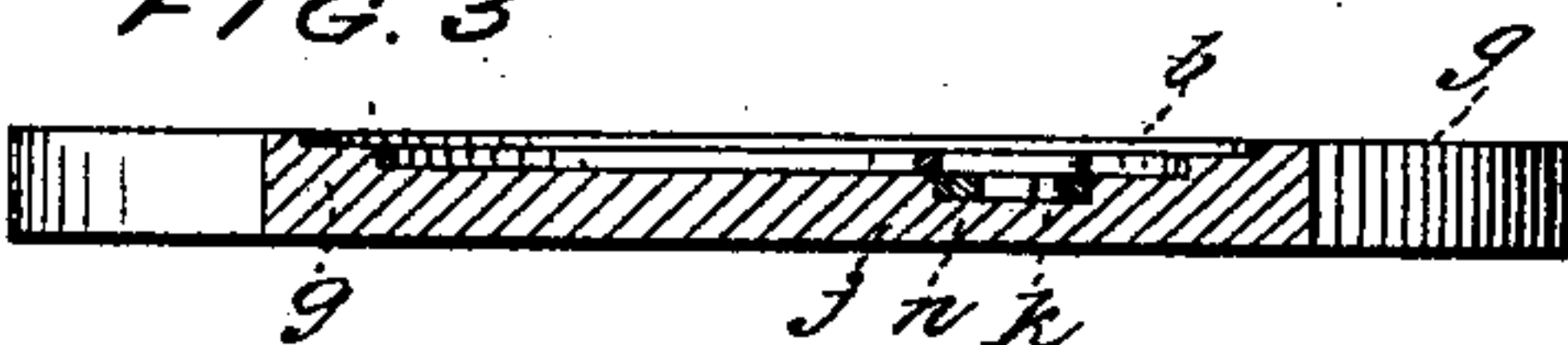


FIG. 3



WITNESSES:

J. E. Odell  
G. H. Shirley

INVENTOR:

Chas V Woerd

# United States Patent Office.

CHARLES V. WOERD, OF WALTHAM, MASSACHUSETTS.

*Letters Patent No. 67,692, dated August 13, 1867.*

## IMPROVEMENT IN STEM-WINDING AND SETTING WATCHES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, CHARLES V. WOERD, of Waltham, in the county of Middlesex, and State of Massachusetts, have invented a new and useful Improvement in Stem-Winding and Setting Watches; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

This invention is an improvement in the detail by which the movable lever carrying a shifting-pinion, and seen in my application for a patent which was allowed April 27, 1867, is changed from one to another position, and is held securely in either position against accidental displacement, the means employed for the purpose of shifting said lever being such as to give an effective indication when the shifting-pinion is in gear with the time-train, and preventing in such case the closing of the cover which shuts over and protects the crystal, hands, and dial. The drawings representing an embodiment of my invention show the details in which my invention consists—

Figure 1 presenting the parts in the position which they have when the gearing is in position for winding only, and

Figure 2 showing them as changed for setting the hands only.

These figures are plans of a full front plate of a well-known variety of watch, but with all the parts removed therefrom which are unconnected with my invention.

Figure 3 is a sectional view, the section being taken on the line *z z*, seen in fig. 2.

The watch-plate is denoted by *g*, and the position of the pendant and push-pin and stem-winder is indicated by the line *y y*, this being the axis of the winding and setting-shaft otherwise not shown. The place for the cannon-pinion is marked *a*, and the lever *b*, which is pivoted on the centre of the wheel *c*, is intended to carry at its short end a gear-wheel or pinion, which, while constantly meshing into gear *c*, is, by vibrating lever *b*, carried around gear *c*, and made to mesh into the cannon-pinion for the purpose of setting the hands, or into a gear on the spring-barrel for the purpose of winding the watch. The piece *m*, seen in figs. 1 and 2, is designed to represent a portion of the outer casing of a watch, and from the junction of this case-piece inward to the recess for gear *c* there is formed in the plate *g* a wide groove into which is fitted a slide, *n*, beneath the long arm of lever *b*, this slide having a tongue or handle by which the slide *n* is moved out and in from and toward the centre of wheel *c*, the tongue which is marked *o* passing through a slot or cut made in the rim of *m* which adjoins the watch-plate *g*, and resting on the surface of *m*, there being a cross-groove in the tongue *o* so that the slide can be drawn out and pushed in by a person's finger-nail. In said slide is an inclined slot into which projects the pin *k* in the end of the long arm of the lever *b*, so that it will be seen that it is the action of the inclined surfaces of this slot on the pin *k* which causes vibratory movement of lever *b* whenever the slide *n* is reciprocated. A spring-latch or catch, *j*, is located as seen in the drawings, and acts on or against a projection on the slide *n* and holds it in either of its normal positions secure against change, except when force is designedly applied for the purpose to the tongue *o*. As the lid or case cover closes down upon the surface of *m*, it will be evident that it cannot be shut when the tongue *o* is drawn out thereupon, as seen in fig. 2, which is the position it must assume before the hands can be set, and the tongue *o* cannot be got at for the purpose of setting the hands till the lid or cover is opened to show a view of them. It will now be apparent that as the watch-case cannot be closed, after setting the hands, till the gear on the short arm of lever *b* is swung out of mesh with the cannon-pinion into mesh with the gear on the spring-barrel, the movements of the time-train will not be likely to be disturbed by the setting-train remaining in connection with the time-train, and it will also be obvious that when the watch-case is closed the condition of the parts must be such that the watch can be wound at the stem.

I claim, for the purposes described, the slide arranged to operate substantially as set forth.

CHAS. V. WOERD.

Witnesses:

J. E. ODELL,

G. H. SHIRLEY.