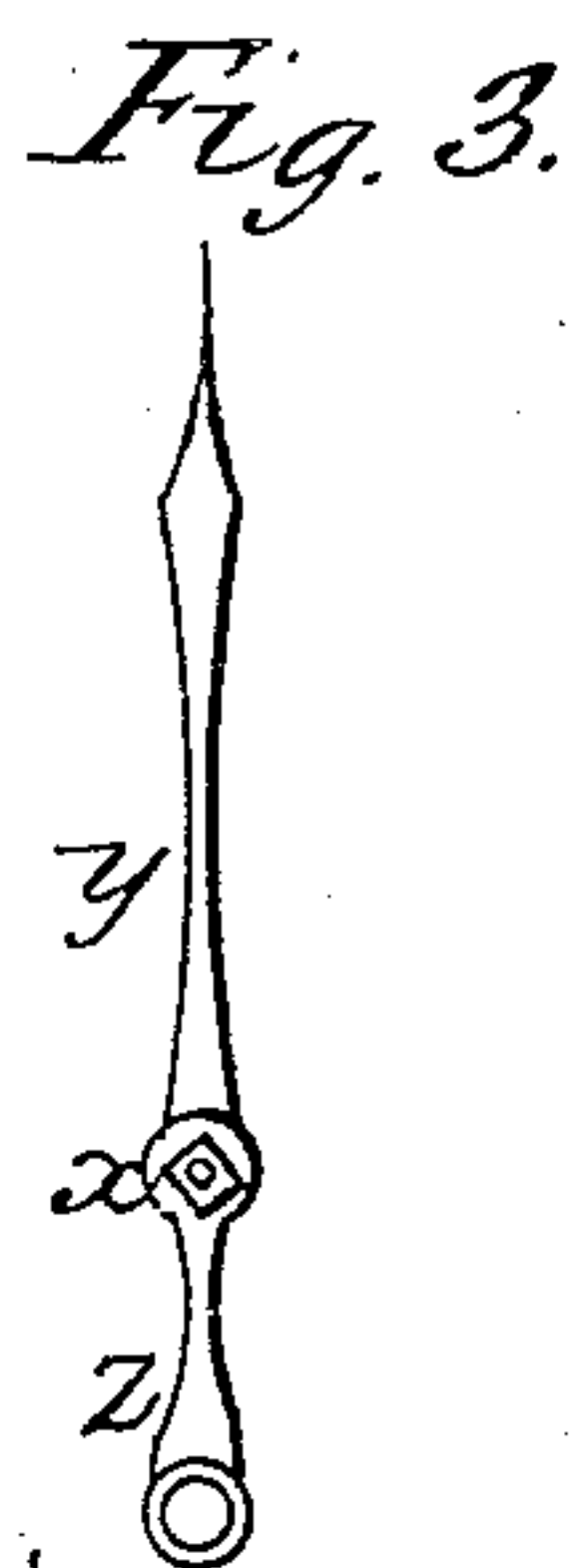
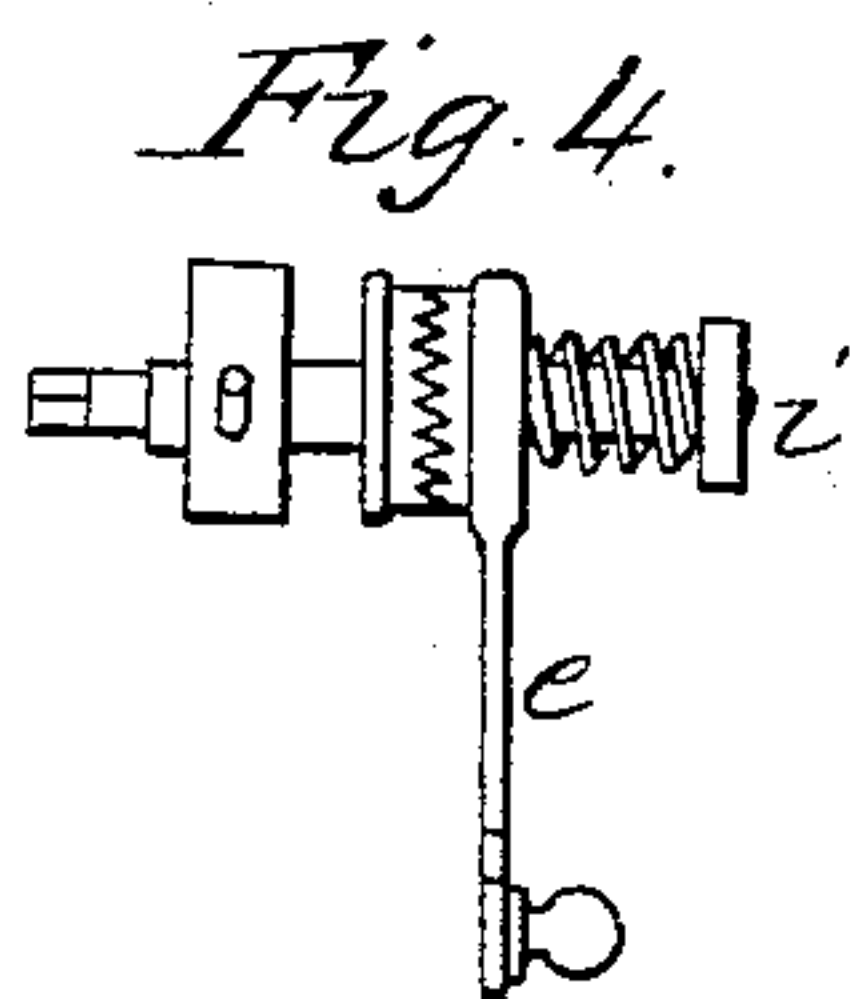
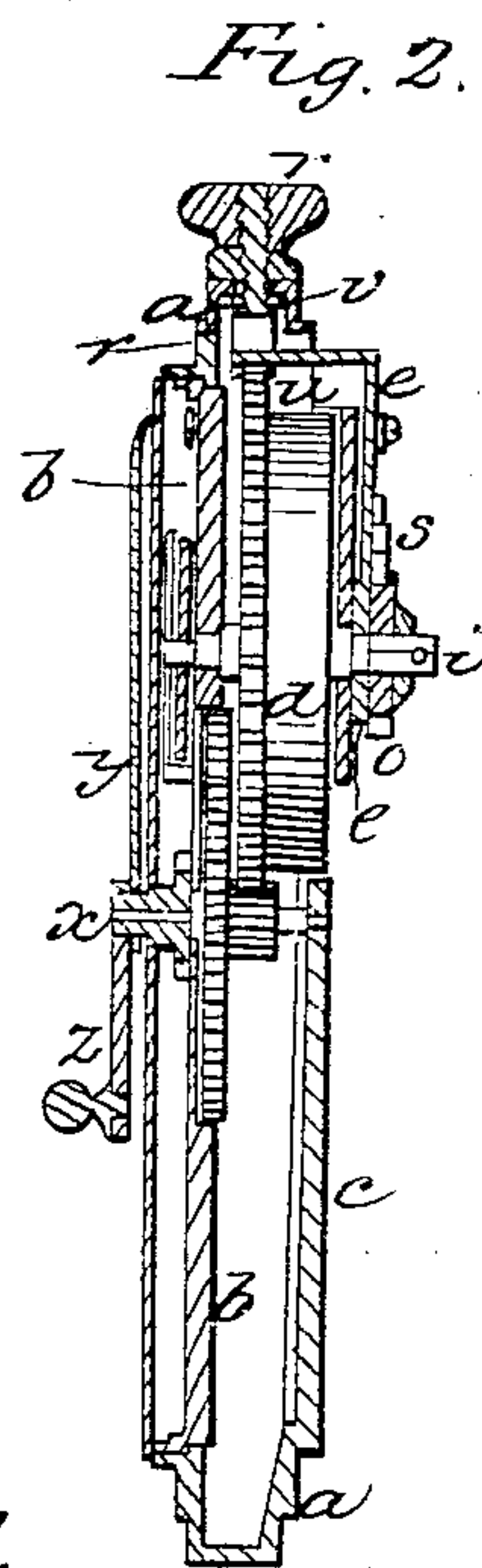
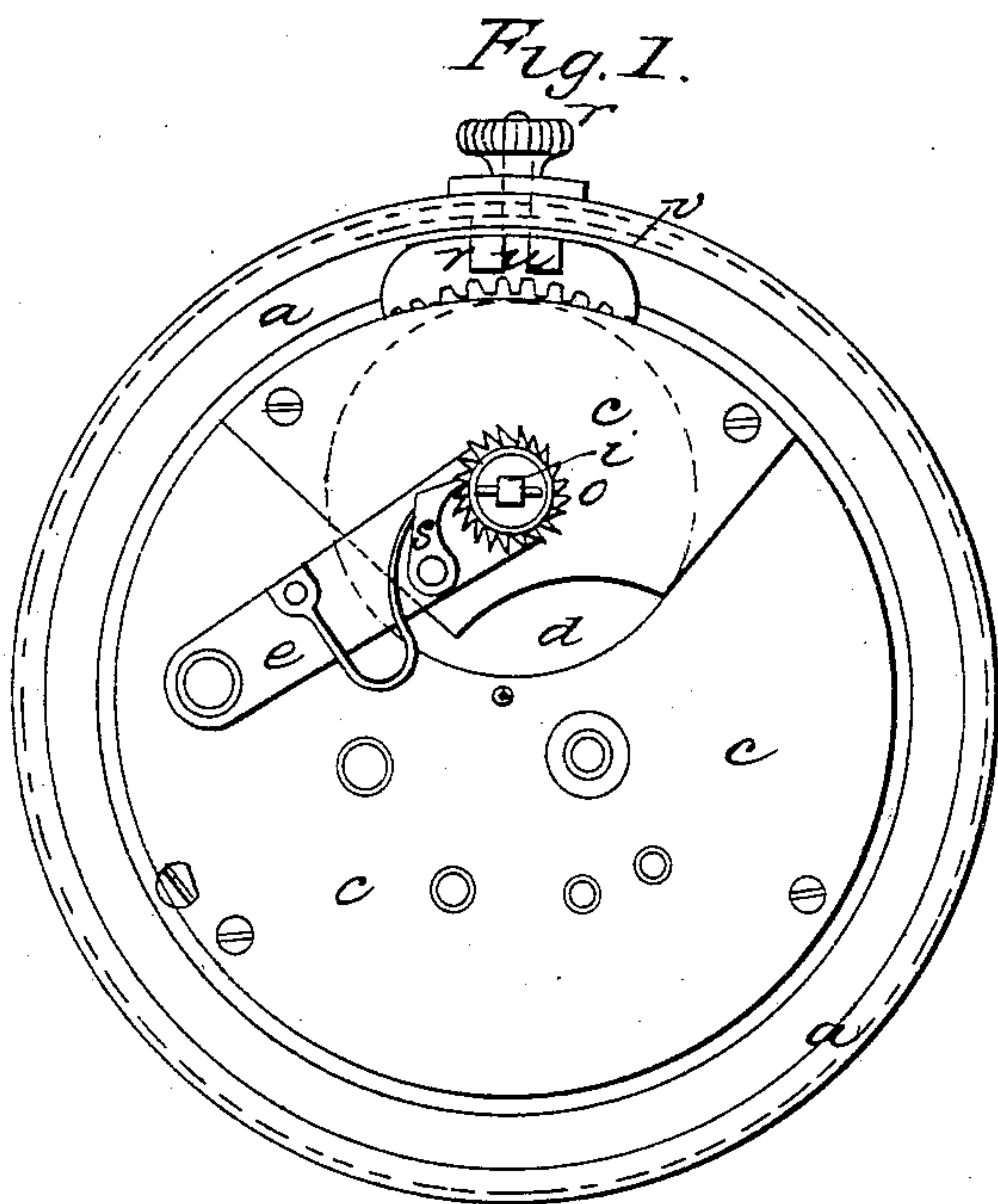


H. ROTHFELDER.
Winding and Setting Watches.

No. 48,725.

Patented July 11, 1865.



Witnesses:

Lemuel W. Perrell

Chas. H. Smith

Inventor:

Henry Rothfelder

UNITED STATES PATENT OFFICE.

HENRY ROTHFELDER, OF NEW YORK, N. Y.

IMPROVEMENT IN WINDING AND SETTING WATCHES.

Specification forming part of Letters Patent No. 48,725, dated July 11, 1865.

To all whom it may concern:

Be it known that I, HENRY ROTHFELDER, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Winding and Setting Watches; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 represents the back of a watch fitted with my winding apparatus. Fig. 2 is a section representing said winding apparatus sidewise, showing also the means for setting the watch. Fig. 3 is a detached view of the hand and arm for setting the watch, and Fig. 4 is a detached elevation of the winding apparatus in a modified form.

Similar marks of reference denote the same parts, and I remark that the figures of the drawings are much larger than the actual parts in order to represent said parts more clearly.

The nature of my said invention consists in a lever and ratchet-wheel applied to wind a watch, in place of the usual detached key, said lever always remaining in its place ready for use; and I fit the shank of the watch so that it will operate on this lever, said shank sliding in a mortise in the periphery of the case. A key being dispensed with for winding, it is necessary that a means be provided for setting the watch. This I effect by a crank-arm or handle fitting the square for the hands, and remaining thereon, so as to be moved by the fingers in setting the hand.

In the drawings, *a* represents the circular portion or bezel of the case, and *b c* the plates carrying the watch-movement, and *d* is the spring-barrel. These parts may be of any usual or desired character.

e is a lever, having the center or arbor *i* of the spring-barrel for a fulcrum, and *o* is a ratchet-wheel acted on by a spring-pawl, *s*, upon said lever. By moving this lever back and forth the pawl *s* will rotate the wheel *o*, which turns the arbor *i* and winds up the spring in the barrel *d*. The lever *e* may be provided

with a small knob at the end, as shown in Fig. 1, that is to be taken between the finger and thumb to move said lever, the case having an opening or recess receiving said knob after the winding is completed and the case closed again, or the said lever may be acted upon by the shank, so as to avoid the necessity of opening the case. For this I bend down the end of the lever *e*, or form an arm thereon, as seen in Fig. 2, that extends into a notch formed in a projection from the shank *r*, as seen at *u*. The bezel of the case is slotted a sufficient length around its periphery to receive this projection passing inward from the shank, and a plate or cap is provided, as shown by dotted lines at *v*, that slides with the shank and covers up the mortise in the bezel. The shank may be provided with a ring, or finished in any usual manner.

Upon the square *x*, that receives the minute-hand *y*, I affix the setting arm or crank *z*, which is made sufficiently strong to allow of its being moved by the fingers in setting the watch.

Fig. 4 shows a crown-wheel ratchet taking a similar ratchet on the arbor of the spring-barrel, the teeth being pressed together by a spring around the arbor, which yields as the teeth separate on the back movement given by the lever *e*.

What I claim, and desire to secure by Letters Patent, is—

1. The combination of the winding-lever with the ratchet-wheel and spring-barrel, in the manner specified.

2. The shank fitted to slide in a mortise through the periphery of the case, in combination with the winding-lever, spring-barrel, and ratchet, as set forth.

3. The arm or crank *z*, affixed to the square for the minute-hand, by which to set the watch, as specified.

In witness whereof I have hereunto set my signature this 6th day of January, 1865.

HENRY ROTHFELDER.

Witnesses:

LEMUEL W. SERRELL,
CHAS. H. SMITH.