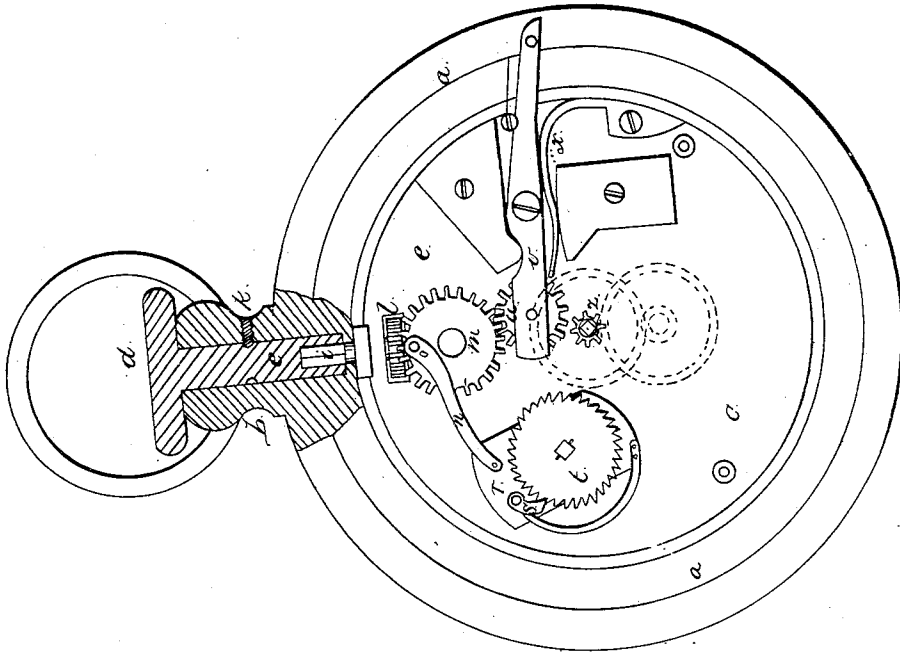


H. ROTHFELDER.
WINDING AND SETTING WATCHES.

No. 65,769.

Patented June 11, 1867.



Inventor

Witnesses
Chas. & Smith
Geo. D. Walker

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United States Patent Office.

HENRY ROTHFELDER, OF NEW YORK, N. Y.

Letters Patent No. 65,769, dated June 11, 1867.

IMPROVEMENT IN 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, 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 same, reference being had to the annexed drawing, making part of this specification, wherein I have represented my improvement in about twice the usual size, the face of the watch being removed, and the case shown sectionally at the shank.

Several devices have heretofore been made for winding and setting watches, by rotating a burr or knob at the end of the shank; but these devices have generally been complicated, and a risk attended their use, that the bar might be turned the wrong way and the parts injured, and at the same time the setting of the hands was effected only by an arrangement of mechanism that was liable to get out of order.

The nature of my said invention consists in a revolving-wheel, rotated by a connection to the burr or knob in the shank having a crank-pin and link to reciprocate the pawl-carrier, that is employed in winding the spring-barrel; and I combine with this a wheel between said winding-wheel and the pinion of the minute-hand, said wheel having long teeth, so that it may be in gear when moved to reach said hand-pinion, or the teeth slide into each other sufficiently to prevent them reaching the hand-pinion at all times except when employed for setting the watch.

In the drawing, *a* is the watch-case, *b* the shank, and *c* the back-plate of the works, these parts being of any usual or desired construction, size, or material. *d* is the winding and setting-bar, with a shank, *e*, formed as a square socket at the end, setting over the square *f*, and *h* is a screw, entering a groove around the shank *e*, to keep it in place, but allow it to be rotated. The square *f* is at the end of the axis of the pinion *l*, having rounded teeth, that will mesh into the teeth of the wheel *m*, that is upon a stud on the plate *c*, and is between the face and said plate *v*. *n* is a link from the crank-pin *o*, to a pin on the pawl-carrier *r*, that has the spring-barrel arbor for its axis of motion, and by its reciprocating or swinging movement, as acted upon by the link *n*, winds the spring-barrel through the agency of the pawl *s* and ratchet-wheel *t*. The setting-wheel *u* is on a lever, *v*, and is kept towards the wheel *m* by a spring, *z*, and when said lever *v* is moved, the teeth of the wheel *u* slide partially out of the teeth of the wheel *m* sufficiently to reach the teeth of the pinion *z* on the arbor of the minute-hand, and allow the watch to be set by the burr *d*. At all other times the wheel *u* is out of gear with said pinion *z*.

It will be understood that the usual ratchet and pawl to hold the main spring is beneath the pawl-carrier *r*, and holds the arbor of the spring-barrel from turning back as the pawl *s* draws back on the ratchet-wheel *t*, by the motion derived from the wheel *m* and link *n*. If it is desired to apply the winding power directly from the wheel *m*, the link *n* may be dispensed with, by having the pawl-carrier *r* a tooth-wheel gearing into the wheel *m*.

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

The pawl-carrier *r*, located between the usual ratchet-wheel on the arbor of the spring-barrel and the ratchet-wheel *t*, and receiving motion from the wheel *m*, pinion *l*, and burr *d*, for winding the watch, as set forth.

I also claim the setting-wheel *u*, provided with long teeth, and set upon the lever *v*, in the manner specified, in combination with the wheel *m*, pinion *z*, and connection to the burr *d*, as and for the purposes set forth.

Witnesses:

GEO. D. WAKLER,
CHAS. H. SMITH.

HENRY ROTHFELDER.