E. H. Hull.

Device for Winding Watches and Clocks.

No. 89,482. Patented Apr. 27, 1869.

Fig: 1

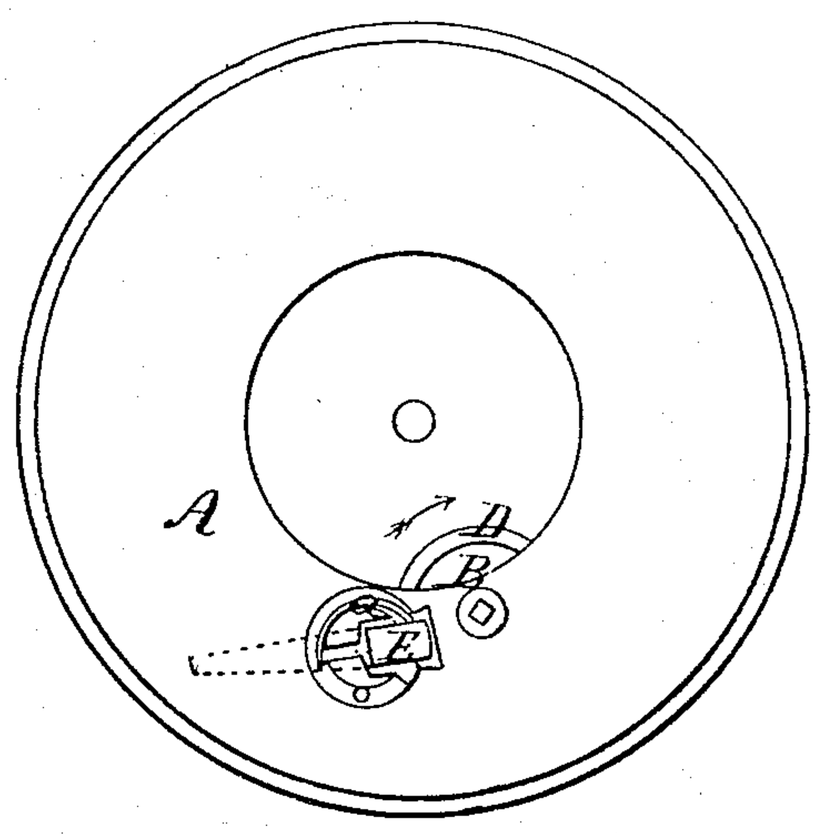


Fig: 2.

Fig: 3.

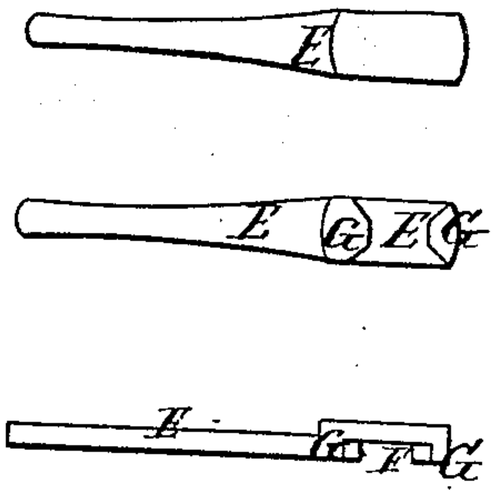
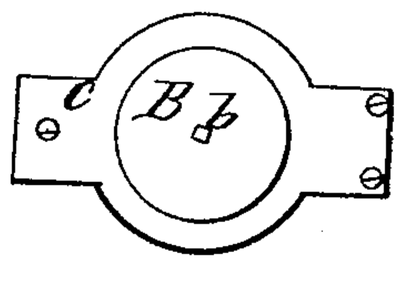


Fig: 4.



Witnesses;
J. H. Burridge
E. Waite

Inventor;
E. H. Hull

United States Patent Office.

E. H. HULL, OF WARREN, OHIO.

Letters Patent No. 89,482, *dated April* 27, 1869.

IMPROVEMENT IN DEVICE FOR WINDING WATCHES AND CLOCKS.

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, E. H. HULL, of Warren, in the county of Trumbull, and State of Ohio, have invented certain new and useful Improvements in a Method of Winding Watches and Clocks; and I do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an enlarged view of the face of a watch.

Figures 2, 3, and 4 are detached sections.

Like letters of reference refer to like parts in the different views presented.

The nature of this invention relates to a device for winding watches and clocks, by means of a smooth wheel and friction-click, thereby dispensing with the ratchet-wheel and pawl in ordinary use for that purpose.

In fig. 1, A represents an enlarged view of the face of the watch, in which is secured a wheel, B, by means of a stay, or yoke C, fig. 4, which represents a back-side view of the wheel.

One side of said wheel is provided with a flange, D, fig. 1, shown also in the transverse view, fig. 2.

E, fig. 3, is the click, one end of which is provided with a notch, F, said notch being a little wider than the thickness of the flange embraced thereby, as shown in fig. 2.

The shoulders G of said notch are three-sided, or they may be of any other shape that may be desired.

This wheel and click are placed in the plate of the watch, as shown in fig. 1, in which position the notch of the click embraces the flange, as shown in fig. 2.

H is a spring, whereby one shoulder of the notch is pressed against the outside face of the flange, and the diagonally-opposite one against the inside face of the flange. Now, on turning the wheel in direction of the arrow, by inverting the winding-key in the hole *b*, fig. 4, the flange will move freely in the notch, but cannot be turned in the opposite direction, for the reason that the corners of the shoulders are made to press against both sides of the flange by the backward movement given the wheel, which will cause the shoulders to so hug the flange that the wheel will not turn.

This cramping the flange between the shoulders effectually prevents the unwinding of the watch or clock, and in proportion to the reverse action of the wheel, the stronger will the click cramp or lock the flange.

The stem of the click, as it reaches back from the notch, may be so adjusted as to throw the shoulders in the proper position for locking, and which, for clock purposes, may be done, thereby dispensing with the use of a spring, the spring being used only in watches, which, in consequence of their being held in every position, require a spring to retain the click in position for locking.

By the application of this wheel and click, the use of the ratchet-wheel and pawl is dispensed with, it being much cheaper and far more durable, as there are no teeth to wear off or break, as they often do in the ordinary ratchet-wheel. It also winds easier and without noise, is much stronger, and therefore more durable. It is more simple in structure, and hence easier to make and adjust.

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

The smooth wheel B, provided with a flange, D, as arranged in combination with the friction-click E, when applied to winding watches and clocks in the manner substantially as specified.

E. H. HULL.

Witnesses:

W. B. PORTER,

JULIUS KING.