(No Model.)

L. BURRI-HALDI.

STEM WINDING AND SETTING WATCH.

No. 429,805. Patented June 10, 1890.

Fig. 1.

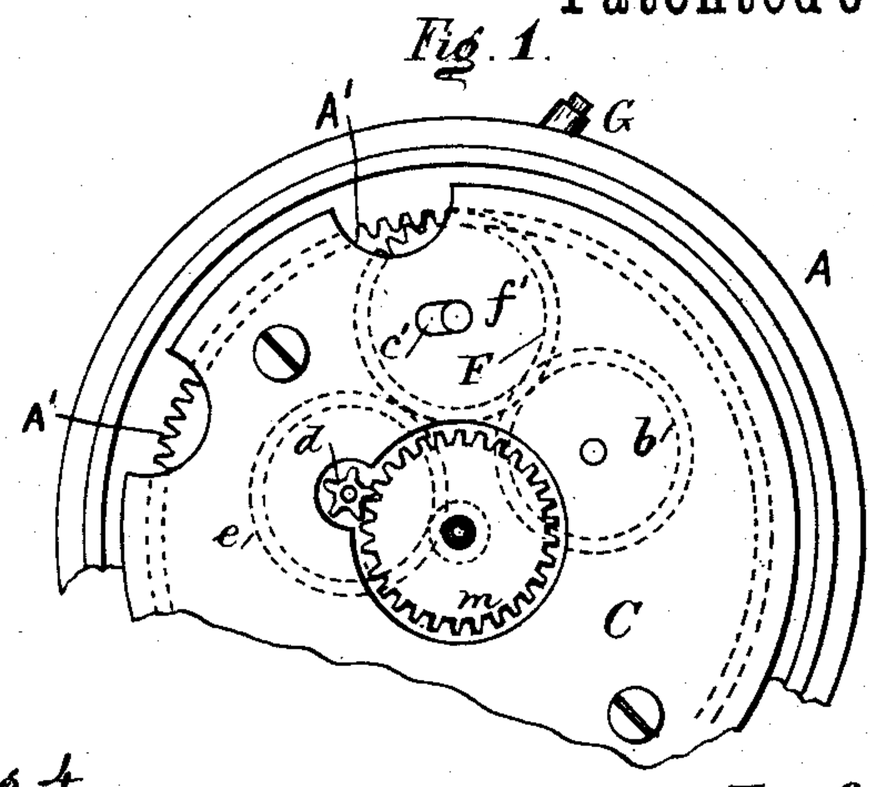


Fig. 4.

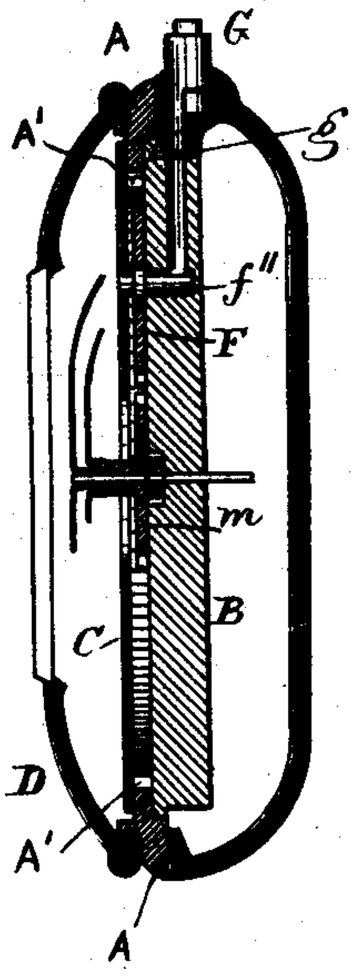


Fig. 2.

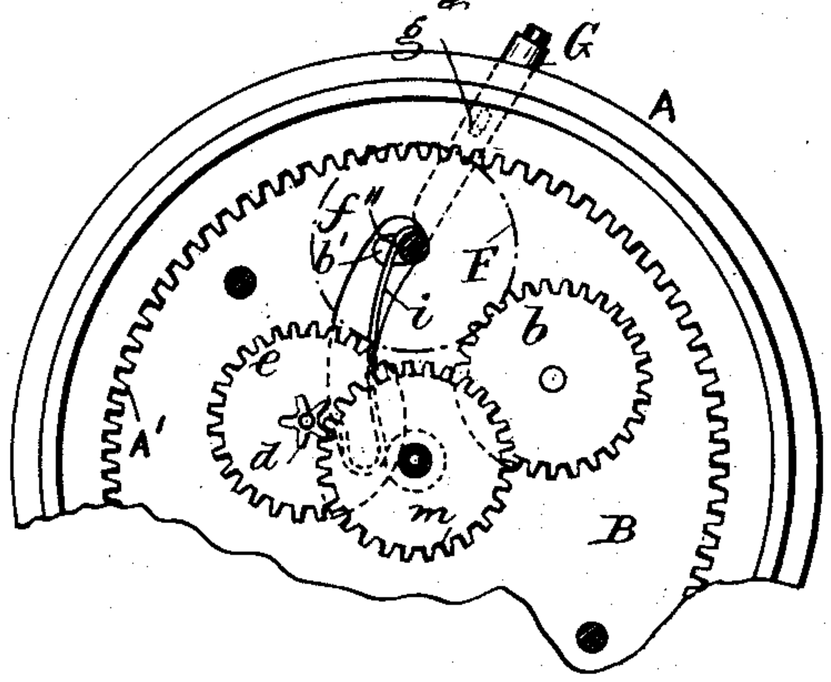


Fig. 5.

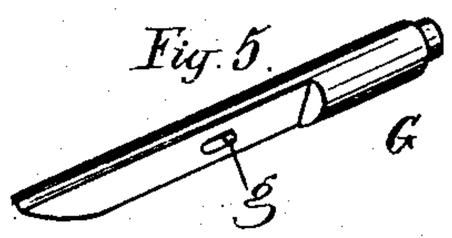
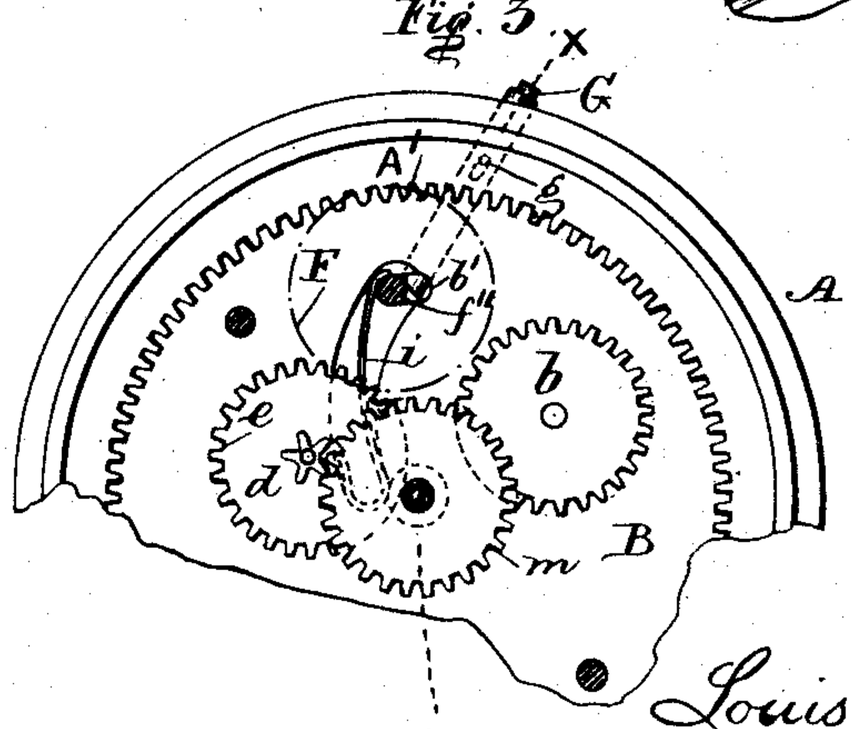


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

LOUIS BURRI-HALDI, OF BIENNE, SWITZERLAND.

STEM WINDING AND SETTING WATCH.

SPECIFICATION forming part of Letters Patent No. 429,805, dated June 10, 1890.

Application filed November 11, 1889. Serial No. 329,843. (No model.)

To all whom it may concern:

Be it known that I, LOUIS BURRI-HALDI, watch-manufacturer, of Bienne, in Switzerland, have invented a new and useful Improvement in Watches, of which the following is a specification.

The invention consists of a new mechanism for winding up the watch and setting the hands acted upon by means of a revolving internally-toothed ring.

The mechanism described below may be combined with every system of watches; but it will be particularly suitable for those watches which are to be placed in the heads of walking-sticks, umbrellas, whips, &c., or in armlets.

In the drawings, Figure 1 shows the mechism as it is to be seen after the removal of the hands and the dial. Fig. 2 shows the same view after the removal of the plate C and the wheel F. In this figure the hand-setting mechanism is at rest and the winding-up mechanism ready to work. Fig. 3 shows the same view as Fig. 2, but with the hand-setting ready to work and the winding-up at rest. Fig. 4 is a section through X Y, and Fig. 5 shows separately and in perspective view the hand-setting pusher.

In all the figures the same letters refer to the same pieces.

The ring A is provided with internal teeth A′, forming an internally-toothed ring or circular rack, and it is capable of being revolved between the plate B, which is provided with a suitable recess, and the plate C, which is screwed upon the plate B. The internally-toothed ring A may be turned in either direction and the glass bezel D is firmly fixed to such ring A. The plate B may be fixed to the watch-case by any means whatever. Between the plates C and B are lodged the wheels of the winding-up and hand-setting mechanism. A wheel *b*, which is fixed to the mainspring-axis, is intended to cause the winding up of the watch, while the usual wheels *e*, *d*, and *m* are intended to move the hands. The rotation of the internally-toothed ring A is transmitted either to the wheel *b* of the winding-up mechanism or to the hand-setting wheel *e* by means of an intermediate wheel F, having its pivot *f′* placed into a slot *c′* of the plate C and its pivot *f″* into a corresponding slot *b′* of the plate B. A spring *i*, fixed to the plate B, maintains the wheel F in the position shown in Figs. 1 and 2—that is to say, in the position in which the wheel F engages the wheel *b*—and produces the winding up of the mainspring when the internally-toothed ring A is turned around from left to right. When the internally-toothed ring A is turned from right to left, the wheel F jumps from tooth to tooth upon the wheel *b*, the rotation of the latter being prevented by the usual click of the mainspring-axis.

The hand-setting pusher G is formed, as shown in Fig. 5, like a wedge, and it is within a suitable recess or hole in the plate B, and it is retained by a screw passing through the slot *g* into the plate B. The wedged end of the pin G bears upon the pivot *f″* of the wheel F, and displaces the same when the pusher G is pushed inward, whereby the spring *i* is bent, as shown in Fig. 3, and the wheel F is put out of gear with the wheel *b* and into gear with the wheel *e*.

Having thus described my invention, I claim—

In a watch-winding mechanism, the wheel F, having its pivot in slots in the plates B and C, in combination with the spring *i* at one side of the pivot and the wedge-ended push-piece G at the other side of the pivot, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS BURRI-HALDI.

Witnesses:

JOHANN WÄBER,

EMILE FLOTSER.