E. H. HULL.

Calendar for Watches.

No. 201,418. Patented March 19, 1878.

Fig. 1.

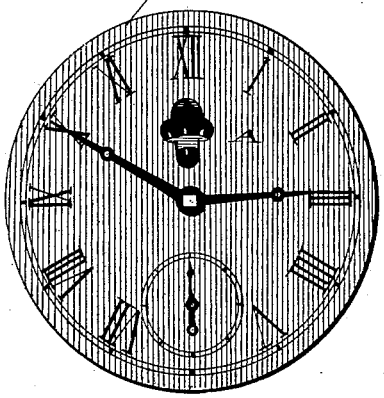


Fig. 2.

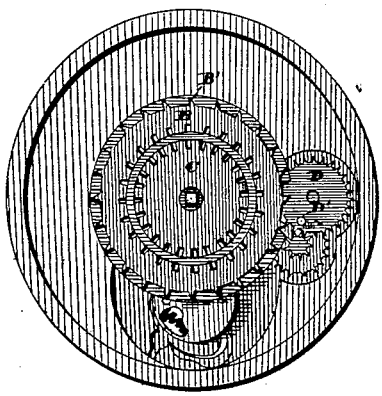
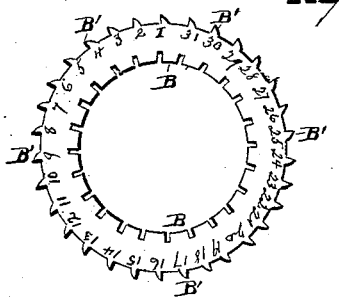
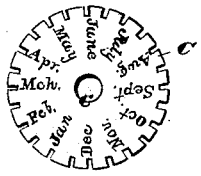


Fig. 3.





WITNESSES.

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ELIAS H. HULL, OF WARREN, OHIO.

IMPROVEMENT IN CALENDARS FOR WATCHES.

Specification forming part of Letters Patent No. **201,418**, dated March 19, 1878; application filed February 1, 1878.

To all whom it may concern:

Be it known that I, ELIAS H. HULL, of Warren, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Calendar for Watches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to calendar mechanism to be attached to watches, by which, in addition to the usual functions of a watch, it may also be made to indicate the day of the month and the month of the year.

In the drawings, which are made a part of this specification, Figure 1 represents a face view of the dial of a watch with my invention attached. Fig. 2 represents a view of the plate on which the dial rests, with the dial removed, showing the manner of the working of my device. Fig. 3 represents two dials, one divided into twelve equal parts, each part stamped or engraved with the name of one of the calendar months. The other dial is divided into thirty-one equal parts, stamped or engraved with figures from one to thirty-one, inclusive, to represent the days of the month.

In the drawings, A represents an opening in the face of the watch, through which the month and day of the month may be read.

B represents the dial on which are indicated the days of the month, and C the dial on which are indicated the calendar months. Both of these dials are placed so as to surround the spindle of the center wheel, the dial indicating the months within the circumference of the one indicating the days of the month, both dials loosely attached to a bed-plate secured to the plate of a watch on which the dial rests. The circumference of the dial B is spur-geared with a fine sharp-pointed tooth directly opposite each of the figures representing the day of the month, these spurs or teeth represented by B′.

D represents a wheel, which is connected, by spur-gears, with the wheel which, in the construction of ordinary watches, imparts motion to the hour-hand. At the proper point on this wheel D is placed a single cog or tooth, D′.

The inner dial C has notches or cogs cut in its circumference; or simply holes drilled near its circumference would answer the same purpose. Similar notches or holes are made in the dial B.

The operation of my device is as follows: The calendar-dials being placed in proper conjunction to indicate the month and the day of the month, and also properly in relation to the wheel D and its single cog D′, the watch is set in motion. As the wheel D makes but one revolution in twenty-four hours, the cog D′ is so placed that at the hour of twelve, midnight, it reaches the circumference of the dial B, and comes in contact with one of the cogs or spurs B′, by which the day-wheel is moved forward the distance between the cogs B′, thus indicating, through the opening A in the face of the watch, another day of the month. This operation is continued daily as long as the watch runs.

The dial C is made to revolve by the use of any instrument inserted in face of the watch at the opening A, and also in the cogs or holes in the dial C; and by a slight pressure to the right the dial is made to move until the proper month is shown. The dial B may be moved in the same manner.

I am aware that it is not new with me to provide a suitable opening in the ordinary dial-plate of a watch in connection with revolving calendar-dials, which latter move about the spindle of the central wheel of a watch; also, that stationary calendar-dials have been used in connection with indicating-hands, which latter receive their movement by indirect engagement with the hour-hand wheel of a watch.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a calendar-watch, the combination, with ring-dial B, provided with notches on its inner periphery and cogs on its outer periphery, of the wheel D, which engages with said outer periphery by a stud or pin, D′, and is actuated by cog engagement with a pinion-gear, which latter moves in unison with the usual hour-hand wheel, substantially as set forth.

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

ELIAS H. HULL.

Witnesses:

BENJAMIN J. TAYLOR,

WM. RITEZEL.