(Model.)

J. P. STEVENS.

WATCH REGULATOR.

No. 264,787. Patented Sept. 19, 1882.

Fig 1

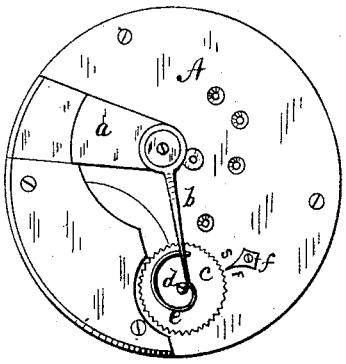
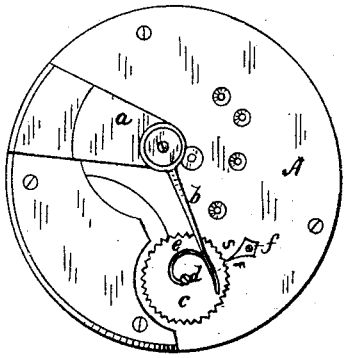


Fig 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSIAH P. STEVENS, OF ATLANTA, GEORGIA.

WATCH-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 264,787, dated September 19, 1882.

Application filed March 11, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOSIAH PERCY STEVENS, of Atlanta, in the county of Fulton and State of Georgia, have invented a new and useful Improvement in Watch-Regulators, of which the following is a full, clear, and exact description.

The object of my improvement is to obtain fine and accurate adjustment of the regulating mechanism of watches; to which ends my invention consists in a cam-grooved wheel or disk fitted for moving the regulator-arm, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a face view of a watch-plate carrying the improved regulating devices, showing the regulator-arm at one extreme of its movement; and Fig. 2 is a similar view, showing the arm moved to the other extreme of its position.

A is the watch-plate, and *a* the pivot-bridge of the escapement-arbor, on which the regulator-arm *b* is fitted, as usual.

c is a circular disk or wheel, sustained on plate A by a pivot pin or screw, *d*, so as to turn freely, and formed with a groove, *e*, of volute form, extending from the pivot *d* to near the outer edge of the wheel. The regulator-arm *b* has its outer end bent to engage the groove *e*, so that as the wheel is turned the arm is moved to and from the center pin, *d*, by the engagement of the arm with the slot.

On plate A is fixed a pointer, *f*, and the rim of wheel *c* is toothed or serrated for the purpose of guiding the adjustment of the wheel with reference to the pointer.

The operation may be readily seen. The movement of arm *b* effects the regulation in the usual manner, and by the addition of the grooved wheel the arm can be moved to a slight degree and with uniformity not possible by hand. The pointer indicates on the wheel the movements of the arm to a fine degree, so that the most accurate adjustment can be obtained. The eccentric groove *e* is so constructed that by turning the disk *c* a certain number of degrees the rate of the watch will be increased or diminished a certain number of seconds per day. For example, if the watch be gaining six seconds per day, turn the disk *d* two degrees toward the slow side of the indicator *f*, and the error in the rate of the watch will be corrected without further experiment—in this case two degrees corresponding with six seconds of variation.

I am aware that it is not new to use an arm projecting from the side of the indicating-lever and provided with two pins working in a spiral groove; but I simply project the end of my lever into a curved groove, (which does not lap upon itself,) so as to give an easy movement as well as a positive action.

What I claim as new and of my invention is—

The combination, with the watch-plate A, the regulator-arm *b*, having a bent outer end, and the pointer *f*, of the notched disk or wheel *c*, supported on plate A by a pivot screw or pin, *d*, and provided with a volute groove, *e*, extending from the pivot to near the outer edge of the wheel, and adapted to operate the regulator-lever positively in both directions, as and for the purpose specified.

JOSIAH PERCY STEVENS.

Witnesses:
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