E. G. BOYNETT.

WATCH REGULATOR.

No. 180,531. Patented Aug. 1, 1876.

Fig. 1.

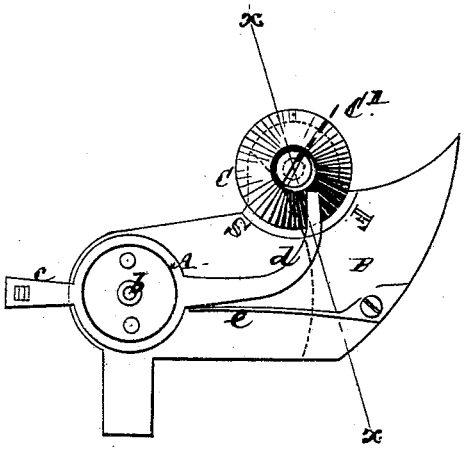
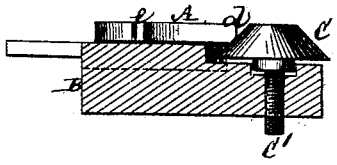


Fig. 2.



Witnesses
John Becker
Fred. Haynes

E. G. Boynett
by his Attorneys
Brown & Allen,

UNITED STATES PATENT OFFICE.

EDWARD G. BOYNETT, OF JERSEY CITY, NEW JERSEY.

IMPROVEMENT IN WATCH-REGULATORS.

Specification forming part of Letters Patent No. **180,531**, dated August 1, 1876; application filed July 15, 1876.

To all whom it may concern:

Be it known that I, EDWARD G. BOYNETT, of Jersey City, in the county of Hudson and State of New Jersey, have invented a certain new and useful Improvement in Watch-Regulators; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification.

This invention consists in the combination, with the regulating-lever, of a conically-headed screw, applied to one side of the lever at its one end, and a spring bearing on the lever to keep it in contact with the conical head of the screw, whereby a simple and smooth adjustment, combining both nicety and accuracy, together with a wide range and secure hold of the position in which it is adjusted, is obtained for the lever.

Figure 1 represents an outside face view of a watch-regulating movement constructed in accordance with my invention, and Fig. 2 a section of the same on the line *x x*.

A is the regulating-lever working on or around a center or pivot, *b*, in the cock B, and having its one arm, *c*, provided with the usual curb pins or projections, which engage with the balance-spring of the watch, and the other arm, *d*, bent to bring its end on or over a conical head, C, of a screw, C′, which screws into the cock in parallel axial relation with the pivot *b*. The arm *d* of the lever A is forced or held by a spring, *e*, up against and on the conical head C of the screw C′. Said screw C′ may be constructed so that it may either be turned by a screw-driver applied to its conical head or by a watch-key fitting an angular projection on said head. Accordingly as such screw is worked in or out of the cock will the regulating-lever A be adjusted to restrain or relieve the balance-spring by the combined or alternate actions of the conical head C of the screw and the spring *e*.

The gradual adjustment afforded by the screw as the latter is worked in or out of the cock provides for the most minute and accurate adjustment of the regulating-lever by the conical head of the screw in a perfectly smooth manner, and said lever is firmly secured in its adjusted position. A wide range of motion is also obtained for the regulating-lever, inasmuch as the screw C′ may be repeatedly turned or rotated to effect the necessary adjustment, and, as the necessary adjustment is controlled not merely by the threaded shank of the screw, but by the conical configuration of its head C, an extremely nice or accurate adjustment of the regulating-lever is obtainable.

I claim—

The combination, with the regulating-lever A, of the screw C′, having a conical head, C, and the spring *e*, substantially as shown and described.

EDWARD G. BOYNETT.

Witnesses:

BENJAMIN W. HOFFMAN,

FRED. HAYNES.