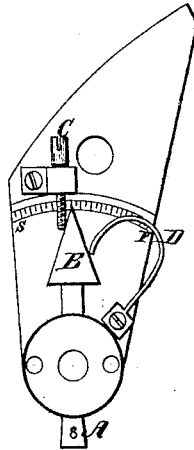


I. C. COWLES.
WATCH-REGULATOR.

No. 184,229.

Patented Nov. 14, 1876.



Witnesses.

*Simon Rosenthal
Daniel Rosenthal*

Inventor.

I. C. Cowles

UNITED STATES PATENT OFFICE.

IRVING C. COWLES, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN WATCH-REGULATORS.

Specification forming part of Letters Patent No. **184,229**, dated November 14, 1876; application filed July 12, 1876.

To all whom it may concern:

Be it known that I, IRVING C. COWLES, of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Regulator for Watches and other time-pieces of similar construction.

The construction and operation of my invention are fully set forth in the following specification, reference being had to the accompanying drawing, in which the figure is a front view.

A is the point of the regulator that operates on the hair-spring; B, inclined planes or spear-shaped points; C screw, and D spring.

The object of my invention is to move the point of the regulator A the smallest amount possible, and thus get a very fine adjustment in regulating the time-piece.

My invention is constructed in the following manner: A is the regulator, constructed in the ordinary manner, except having on its opposite end B a spear-shaped point, or two inclined planes. C is the screw, and is fast-

ened in such a manner to the balance-wheel bridge that its point operates on one of the inclined planes, and the spring D on the other. By turning the screw C to the right it forces the regulating-point to the right, which, operating on the hair-spring, causes the watch to go faster. By turning the screw C to the left the spring D forces the regulating-point to the left, and the watch loses time. By having the screw operate in connection with the spring on inclined planes, one whole turn of the screw affects the regulating-point but a trifle, and by dividing the turn of the screw a very fine adjustment is the result.

I claim as my invention—

A regulator for time-pieces, consisting of the inclined planes B, the screw C, and spring D, combined and operating substantially as and for the purposes specified.

IRVING C. COWLES.

Witnesses:

SIMON ROSENBLOOM,
DANIEL ROSENBLOOM.