

(No Model.)

B. LE COULTRE.
CLICK SPRING FOR WATCHES.

No. 358,207.

Patented Feb. 22, 1887.

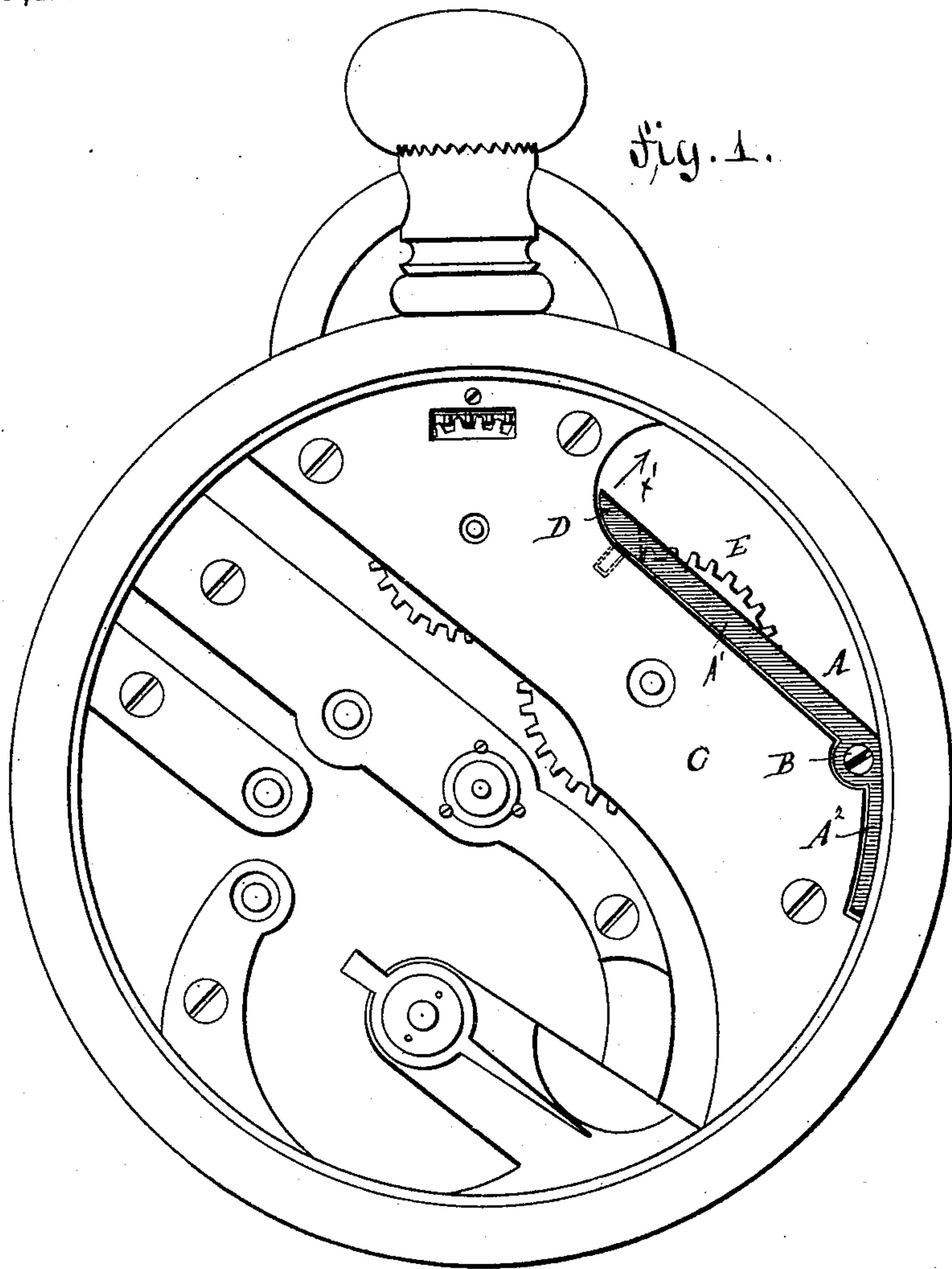


Fig. 2.

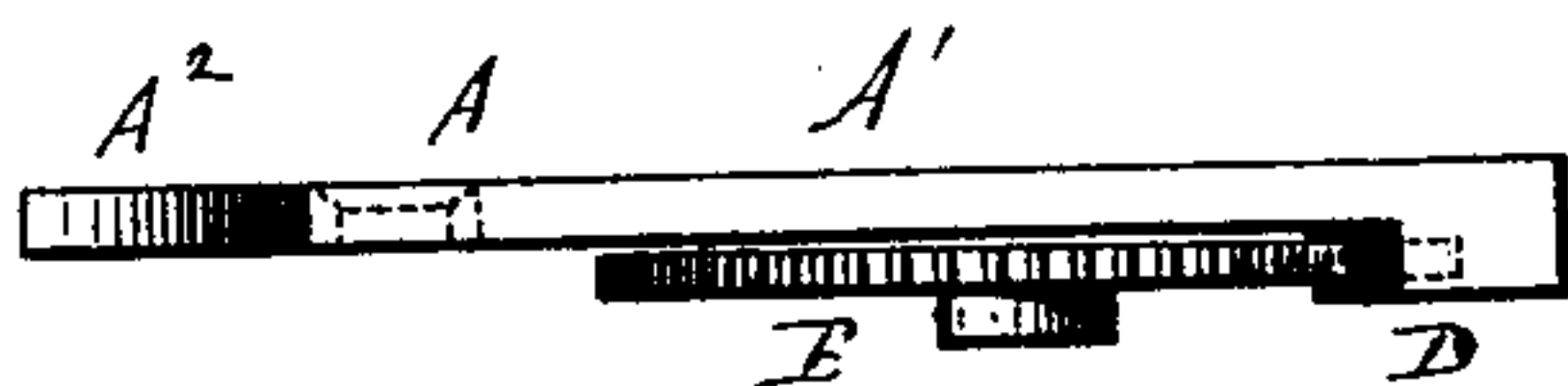
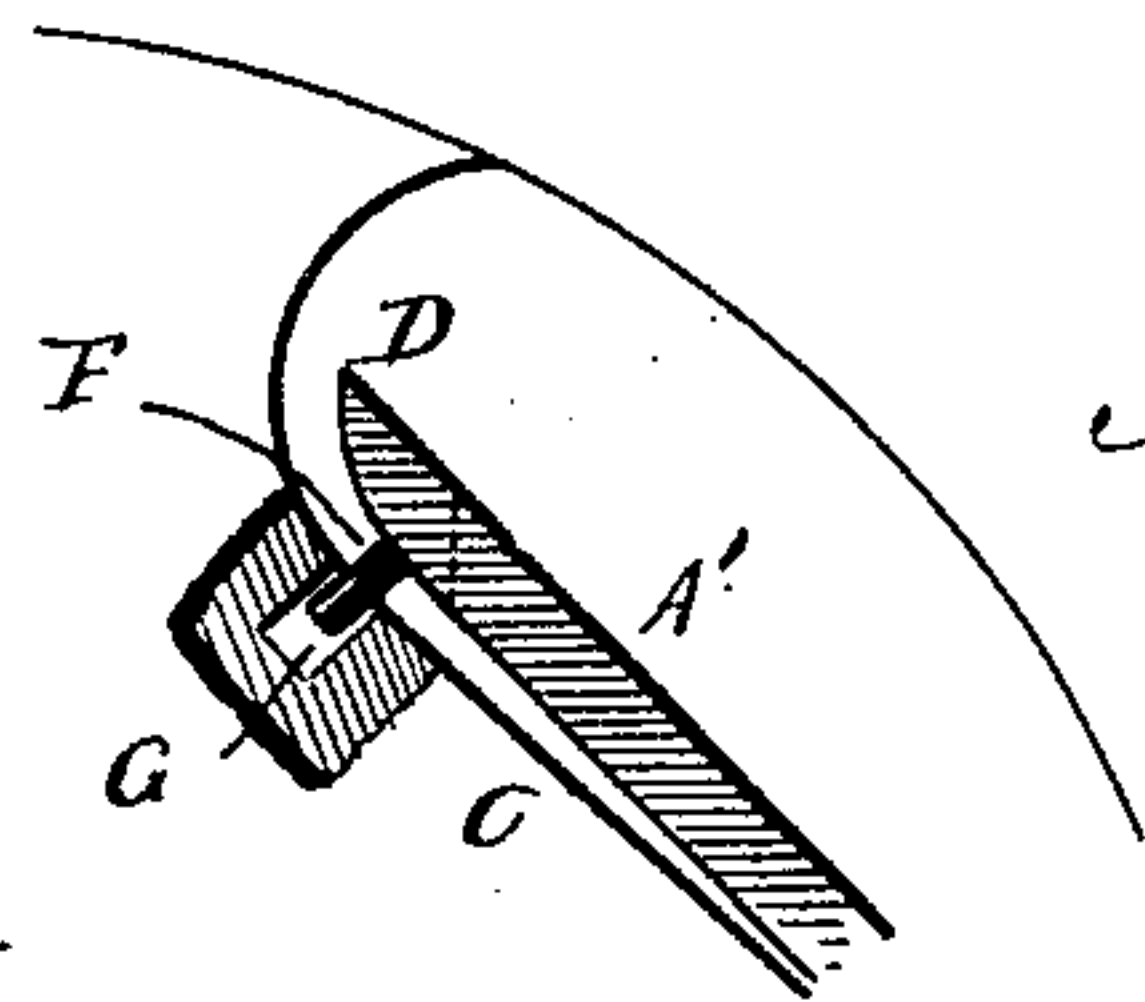


Fig. 3.



WITNESSES:

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BENJAMIN LE COULTRE, OF SENTIER, SWITZERLAND.

CLICK-SPRING FOR WATCHES.

SPECIFICATION forming part of Letters Patent No. 358,207, dated February 22, 1887.

Application filed October 19, 1886. Serial No. 216,631. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN LE COULTRE, a citizen of Switzerland, and a resident of Sentier, Switzerland, have invented a certain new and useful Improvement in Click-Springs for Watches, of which the following is a specification.

Heretofore the click-springs used in watches, especially those of Swiss manufacture, have been fastened to the bridge or plate at one end, and their thickness was decreased adjacent to said end for the purpose of giving them sufficient spring-tension. By thus decreasing the thickness the springs are very apt to break, especially at the thinner part.

The object of my invention is to provide a new and improved click-spring for watches, which is not apt to break, and is simpler in construction than the ordinary click-springs used heretofore.

The invention consists in an L-shaped click-spring pivoted at the angle to the plates of the works, one arm of the L-shaped spring resting permanently against the plates or bridge of the works and the other being adapted to spring toward and from the same.

The invention further consists in a guide-pin projecting from the free end of the click-spring into a recess of the bridge or plate on which the spring is fastened, for the purpose of keeping the spring in place, all as will be fully described hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a face view of the works of a watch provided with my improved click-spring. Fig. 2 is a side view of the click-spring and of the wheel with which it engages. Fig. 3 is a detail sectional view of the click-spring and the aperture in the plate into which the pin of the click-spring can pass.

Similar letters of reference indicate corresponding parts.

The click-spring A is made approximately L-shaped, and is pivoted at its angle by a pivot or screw, B, to a plate, C, against which the longer shank, A', of the spring A rests. The end of the longer shank, A', is provided with a bevel, D, which engages with the teeth of the wheel E. The other shorter shank, A², is located in a recess in the edge of the plate C, and rests against the edge of said recess.

A pin, F, projects from the springing end of the shank A', and can pass into an aperture or notch, G, in the edge of the bridge or plate C. Said pin serves to guide the springing end of the spring, which is necessary, as the spring is of considerable length and might work up and down and out of engagement with the teeth of the wheel E, which frequently happens even with shorter springs.

When the wheel E revolves, the teeth of the wheel press the beveled end D of the shank A' in the direction of the arrow α' , Fig. 1, and when the tooth slides from under the head D the spring snaps back in the inverse direction of the arrow α' , Fig. 1, and so on. The shank A' turns or swings on the pivot B, and is brought back to its original position by the spring-tension in the shank A². The shank A' is not sprung, but remains rigid, all the spring-tension of the click-spring being in the shank A².

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

1. A watch having an L-shaped click-spring pivoted at its angle, the edges of said L-shaped click-spring resting against the edges of a bridge or plate, substantially as shown and described.

2. A click-spring for a watch having its swinging end provided with a guide to prevent the swinging end of the ratchet-wheel from moving from the plane of the ratchet-wheel sufficiently to disengage the swinging end of the click-spring from the ratchet-wheel, substantially as shown and described.

3. In a watch, the combination, with the bridge or plate having an aperture in its edge, of a click-spring held at said edge, and provided on its swinging end with a guide-pin which can pass into an aperture of the plate for the purpose of maintaining the swinging end of the click-spring in position in relation to the face of the ratchet-wheel, substantially as shown and described.

Signed at Chaux de Fonds, in the Canton of Neuchâtel and Republic of Switzerland, this 24th day of May, A. D. 1886.

BENJAMIN LE COULTRE.

Witnesses:

L. ROZAT,
JAMES BOILLAT.