

(No Model.)

2 Sheets—Sheet 1.

A. DIDISHEIM.
STOP WATCH.

No. 466,558.

Patented Jan. 5, 1892.

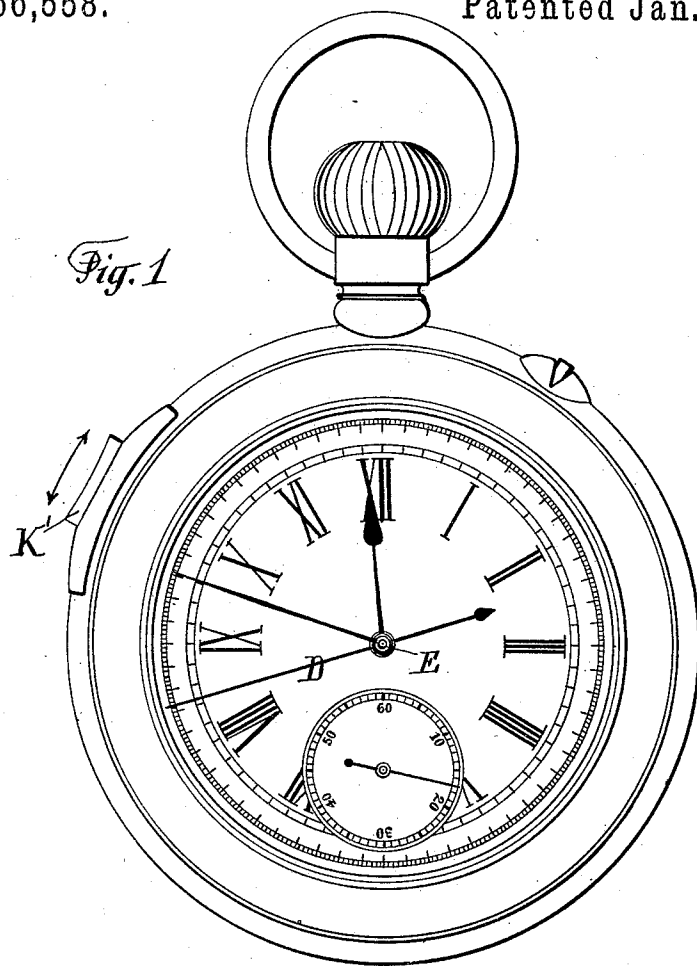
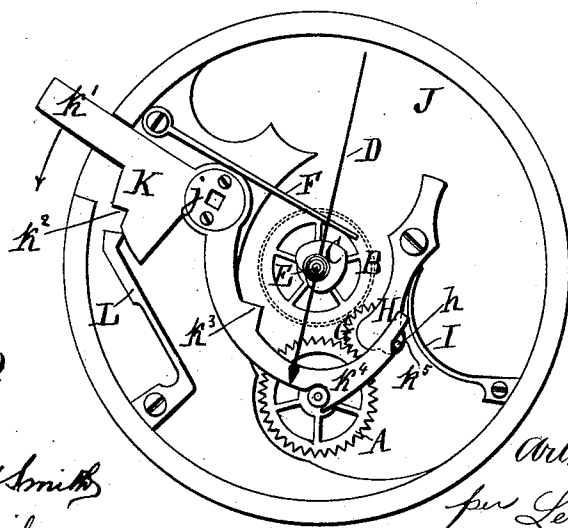


Fig. 2
Witnesses
Chas. H. Smith
J. Straub.



Inventor
Arthur Didisheim
per Lemuel W. Terrell
[Signature]

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2 Sheets—Sheet 2.

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Fig. 3

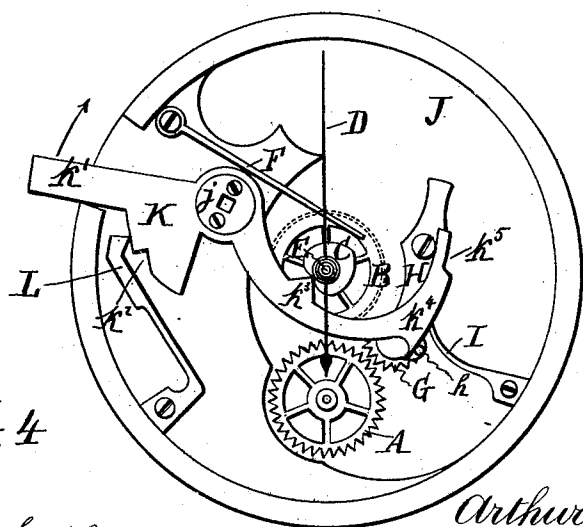
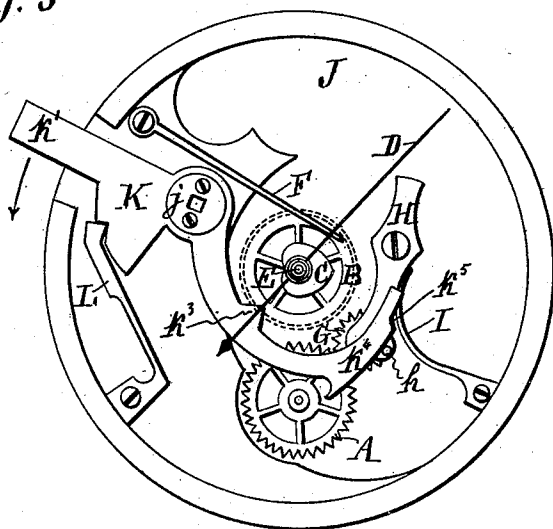


Fig. 4

Witnesses

Charles H. Smith
J. Staib

Inventor

Arthur Didisheim.

per Lemuel W. Serrell
att'y.

UNITED STATES PATENT OFFICE.

ARTHUR DIDISHEIM, OF CHAUX-DE-FONDS, SWITZERLAND.

STOP-WATCH.

SPECIFICATION forming part of Letters Patent No. 466,558, dated January 5, 1892.

Application filed September 24, 1891. Serial No. 406,638. (No model.) Patented in Switzerland May 28, 1891, No. 3,451.

To all whom it may concern:

Be it known that I, ARTHUR DIDISHEIM, watch-manufacturer, of Chaux-de-Fonds, Switzerland, have invented an Improved Stop-Watch, (for which I have obtained Letters Patent in Switzerland, numbered 3,451 and dated May 28, 1891,) of which the following is a specification.

The invention consists of an improved stop-watch and in the construction and combination of parts and details, as will be fully described and set forth hereinafter, and pointed out in the claims.

My improved stop-watch is provided with a seconds-hand, which is alternately rotated by means of one of the gears of the watch-movement and of a reciprocating intermediate-wheel stopped and replaced on its starting-point. The three functions are obtained by means of only one rocking lever, having one of its ends projecting out of the watch-case and provided with a suitable head-piece to be acted upon by hand. The mechanism is disposed so as to allow the seconds-hand to start from the point where it has been stopped without previously replacing the same to zero.

In the accompanying drawings, Figure 1 is a front view of my improved stop-watch. Fig. 2 is a plan view of the stop-watch mechanism as it is to be seen when removed out of the case and going. Fig. 3 is a similar view of said mechanism when stopped. Fig. 4 is a similar view of said mechanism when at rest, the seconds-hand being set to zero.

In all the figures the same letters refer to the same pieces.

The gears of the watch-movement are not shown, the same being of any one of the well-known constructions used in ordinary watches.

A is a cog-wheel fixed on the axis of one of the gears of the watch-movement, preferably on the axis of the seconds-wheel.

B is a cog-wheel, the tubular axis of which bears the heart-piece or eccentric C and the seconds-hand D and is free to rotate on the tubular axis E of the hour-wheel. (Not shown.) A friction-spring or brake-spring F bears against the cog-wheel B, so as to have the seconds-hand maintained in any place where it has been stopped until it is set to zero.

G is an intermediate wheel pivoted to a reciprocating-bridge H and pressed into gear with both cog-wheels A and B (see Fig. 2) by a spring I, fixed to the plate J. The rocking lever K is pivoted to the plate J by means of a disk j, screwed to said plate J, and has its end k' projecting out of the watch and combined with a head-piece K', sliding on the case when acted upon by the finger. The lever K is furthermore provided with a notch k², into which the head of a spring L, fixed to the plate J, may be engaged, as shown in Fig. 3. A projection k³ is provided to act upon the eccentric or heart-piece C, and a bowed arm k⁴, with depression k⁵, upon which bears a pin h of the reciprocating bridge H.

When in the position shown in Fig. 2, the lever K is out of action and the head of the spring L bears on one side of the notch k². If one then presses the end k' in the direction indicated by an arrow in Fig. 2 until he feels a resistance, he will throw the lever K into the position shown in Fig. 3, the head of the spring L engaging the notch k² of lever K. By this rocking of the lever K its bowed arm k⁴ causes the pin h of the reciprocating bridge H to be lifted so as to throw the intermediate wheel G out of gear of the central wheel B. This causes the seconds-hand to be stopped, said hand being held in its position by means of the spring F acting like a brake upon the wheel B. Now if one again presses the end k' of lever K in the direction shown by an arrow in Fig. 3 the spring L will be forced out of the notch k² and the projection k³ will fall upon the heart-piece C, setting the seconds-hand D to zero, as shown in Fig. 4. In the course of the just-mentioned rocking movement of the lever K its bowed arm k⁴ slides against the pin h of the rocking bridge H, which remains in its position as shown in the Figs. 3 and 4, in which the seconds-hand is stopped, and will only assume the position shown in Fig. 2, in which the seconds-hand is going, when the lever K is rocked from its position shown in Fig. 4 into that shown in Fig. 2.

I claim as my invention—

The combination, with the wheel B, heart-cam C, and seconds-hand D, of the friction-spring F, bearing on the wheel B, the lever K, adapted to be acted upon by the finger

and having a projection k^3 and a bowed inner end, the spring I, having an inclined end entering a notch in the lever K, the bridge H, and the wheel G, carried by the same, the
5 bowed end of the lever K, acting on the bridge H to separate the wheels G and B, and the spring I, acting in the opposite direction to engage said wheels when the lever K is swung back, and the projection k^3 , acting upon the

heart-cam to restore the seconds-hand to the normal position, substantially as specified. 10

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

ARTHUR DIDISHEIM.

Witnesses:

MAURICE RUOFF,
HENRI CHORPUE.