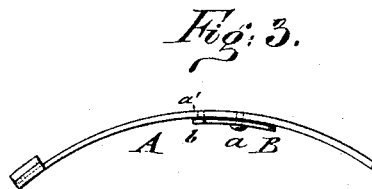
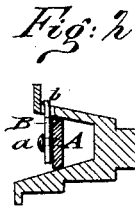
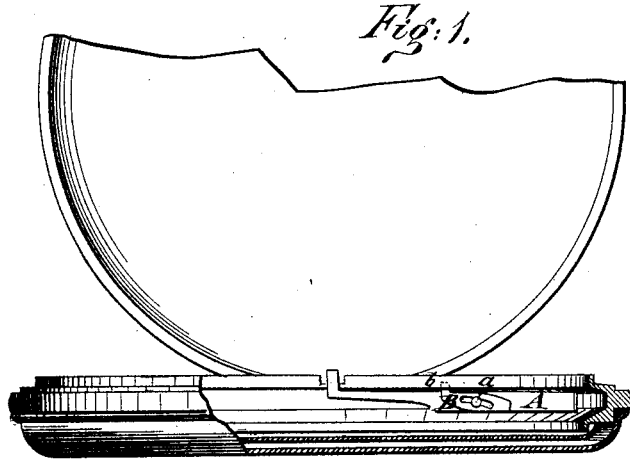


D. C. VOSS.  
Watch-Case Spring.

No. 196,609

Patented Oct. 30, 1877.



WITNESSES:

*Chas. Nida*  
*J. H. Scarborough*

INVENTOR:

*D. C. Voss.*  
BY *Murphy*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

DETLEF C. VOSS, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND E. A. F. WACHTER, OF SAME PLACE.

## IMPROVEMENT IN WATCH-CASE SPRINGS.

Specification forming part of Letters Patent No. **196,609**, dated October 30, 1877; application filed September 29, 1877.

*To all whom it may concern:*

Be it known that I, DETLEF C. VOSS, of the city, county, and State of New York, have invented a new and Improved Watch-Case Spring, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a sectional view of a watch-case with my improved spring. Fig. 2 is a detail section through case and spring; and Figs. 3 and 4 are, respectively, a top view and side view of a watch-case lock-spring.

Similar letters of reference indicate corresponding parts.

This invention has reference to an improved watch-case spring that may be fitted by any watch-maker with great facility into the case, and replaced when broken, the same construction being used for fly and lock springs of watch-case caps and backs; and the invention consists of a watch-case spring having a slotted catch-piece, with hook end turning on a fixed rivet or pivot of the spring, so that the hook end of the catch may be readily locked to or released from a recess of the watch-case.

Referring to the drawing, A represents the body of my improved watch-case spring, which is made of different size, according to the size of watch-case with which the springs are to be used.

The springs may be either fly or lock springs, according as they are to be used for throwing the faces or backs of the case into open position, or lock them into closed position.

To a fixed rivet or pivot, *a*, of the spring A is applied a slotted catch-lever, B, with an upward-projecting end, *b*, that serves to enter a recess or hole of the watch-case, so as to lock thereby the spring in position therein.

The slot of the catch-piece serves to admit the adjustment of the same, so that its projecting end *b* may readily reach and enter the recess of the case. In case the recess is so placed that the slotted catch-lever could not reach it, a second hole, *a'*, for the rivet may be provided, so that the position of the rivet *a* may be changed, and thereby the catch-lever brought within convenient reach of the recess, to which the spring is then locked by the catch-lever.

The spring retains its position without getting loose by use, as in the case of the springs attached by screws, as by this spring the strain is thrown on the catch-lever, and produces the firmer and more secure position of the spring.

A new spring may be readily put in, in case the old one breaks, by turning down the catch-lever, removing the broken spring, inserting a new one, and fastening the same by locking the catch-lever into the recess of the watch. Thus a watch-case spring is furnished that may be quickly and easily fitted by any watch-maker, without the loss of time and annoyance of putting in the present springs.

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

A watch-case spring having a slotted adjustable catch-lever, turning on a rivet of the spring, and having a projecting end to lock into a recess of the watch-case, substantially as and for the purpose set forth.

DETLEF C. VOSS.

Witnesses:

PAUL GOEPEL,  
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