

(Model.)

N. J. FELIX.
WATCH CASE SPRING.

No. 361,752.

Patented Apr. 26, 1887.

fig. 1.

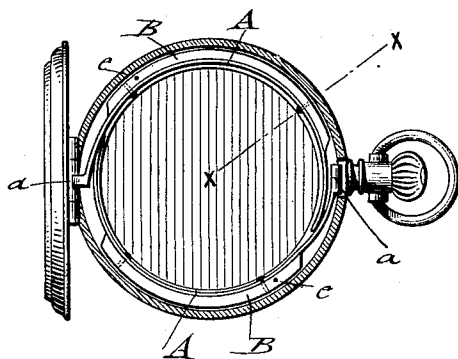


fig. 2.

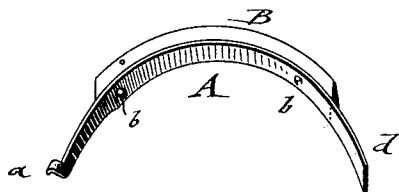
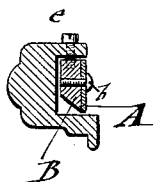


fig. 3.



WITNESSES:

J. H. Rosenbaum.
Martin Petry.

INVENTOR
N. J. Felix
BY
Joseph Rogers
ATTORNEYS.

UNITED STATES PATENT OFFICE.

NUMA J. FELIX, OF NEW YORK, N. Y.

WATCH-CASE SPRING.

SPECIFICATION forming part of Letters Patent No. 361,752, dated April 26, 1887.

Application filed March 9, 1886. Serial No. 194,575. (Model.)

To all whom it may concern:

Be it known that I, NUMA J. FELIX, of the city, county, and State of New York, have invented certain new and useful Improvements in Watch-Case Springs, of which the following is a specification.

This invention has reference to an improved watch-case spring, which can be set quickly to its proper position in the center of the watch-case without requiring any special adjustment, and which forms, when secured in position, a dust-band for the end lips or catches of the springs; and the invention consists of a watch-case spring having a curved lip or catch at its end and an arc-shaped supporting-piece that corresponds to the curvature of the watch-case center, the spring being of even height with the supporting-piece and attached to the supporting-piece by screws or other fastening devices and extended at that end opposite to the lip or catch beyond, so as to form a dust-band.

In the accompanying drawings, Figure 1 represents a top view of my improved watch-case spring shown as applied to a watch-case, the center of which is drawn in section. Fig. 2 is a perspective view of the watch-case spring, and Fig. 3 a vertical transverse section on line *x x*, Fig. 1, drawn on a larger scale.

Similar letters of reference indicate corresponding parts.

My improved watch-case spring is made of two separate sections—a spring, A, of spring-steel, which is provided with a curved lip or catch, *a*, at its outer end, and an arc-shaped supporting-piece, B, of brass or other metal, which corresponds to the curvature of the watch-case center and is made of the same height as the spring A. The spring A is attached to the supporting-piece B by screws *b b*, one near each end, or by other equivalent fastening devices. The spring A is extended at the end opposite to that end provided with the lip or catch beyond the supporting-piece B, the projecting ends *d* of the springs forming a dust-band for the case at the points where the lips or catches *a a* of the springs extend from the center toward the cap of the case, as shown in Fig. 1.

My improved watch-case spring is made in different sizes, according to the sizes of the

cases for which it is to be used, and inserted into the center of the watch-case, and secured thereto by a screw in the usual manner. It serves to re-enforce the center, which is of special advantage in watch-cases made of thin metal.

My improved spring dispenses with the expensive hand forging and fitting of the springs heretofore in use for the watch-cases, and supplies them in finished shape, ready to be secured to the cases, while furnishing at the same time a dust-guard for the case.

I am aware that a watch-case spring in which a curved and supporting bar or body with a V-shaped shoulder and a spring having a V-shaped notch, which spring is attached to the body by a screw, has been used heretofore, and I do not claim this construction. In my watch-case spring the steel spring extends over the entire length of the supporting-piece and covers the same entirely, so that it is out of sight. The shank of the spring is also attached in a more reliable manner, as it is positively fastened at two points to the supporting-piece.

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

1. A watch-case spring consisting of an arc-shaped supporting-piece, a steel spring having a lip or catch at one end, and a shank equal in height with the supporting-piece and extended along the entire length of the same, and screws by which the shank of the spring is attached to said supporting-piece, substantially as set forth.

2. A watch-case spring consisting of a main piece of spring-steel having a lip or catch at one end, and an arc-shaped supporting-piece to which the spring is attached, said spring being of even height with the supporting-piece extended at the end opposite the lip or catch beyond the supporting-piece, so as to form a dust-band, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

NUMA J. FELIX.

Witnesses:

PAUL GOEPEL,
MARTIN PETRY.