

N. J. FELIX.
WATCH-CASE SPRING.

No. 182,360.

Patented Sept. 19, 1876.

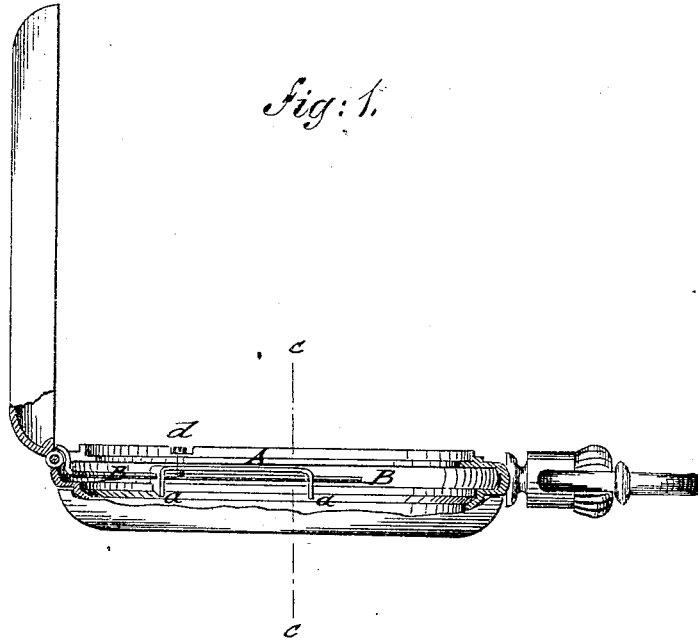


Fig: 2.

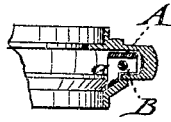


Fig: 3.



WITNESSES:

James Hida
John Goethals

INVENTOR:

N. J. Felix
BY *Mumford*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN WATCH-CASE SPRINGS.

Specification forming part of Letters Patent No. **182,360**, dated September 19, 1876; application filed August 28, 1876.

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 a new and Improved Watch - Case Spring, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side view, with part broken off, of a watch-case with my improved spring. Fig. 2 is a detail vertical transverse section of the same on line *cc*, Fig. 1; and Fig. 3 is a bottom view of the spring detached from the case.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide for watch-manufacturers and watchmakers an improved spring, that may be fitted with but little trouble into any case, so as to facilitate the repairing of broken springs by any watchmaker in a short time; and the invention consists of a bearing or bridge piece, with downward-bent end posts or lugs that bear in perforations the steel spring, the posts being readily recessed to fit any case.

In the drawing, A represents the bearing or bridge-piece, that corresponds to the circumference of the case, and supports, in downward-bent perforated end posts or lugs *a*, the watch-spring B, which slides in the posts to be adjusted by its upward curved and flattened end to the hinged lid of the case. The bridge-piece A has a number of small perforations, by which it may be secured, in the usual manner, to the case by a fastening-screw, *d*, the bridge being adapted by the holes to

the varying positions of the screws in different cases. The posts *a* are, with little trouble, fitted to the seat of the case, as shown in Fig. 2, the lower edges of the post requiring but little cutting, so as to enable any intelligent mechanic to put the spring into the watch-case in quick and reliable manner without necessitating the sending back of the case to the case-manufacturer to have the spring fitted in.

I am aware that solid supporting-pieces that are fitted to the case, and retain the spring in perforated end lugs, are in use, and I do not claim the same; but as the lower part or seat of the solid support has to be recessed along its entire length when fitted to the case, which is very laborious, and endangers the lugs being cut and weakened, the arrangement of my bridge-piece that combines with the posts the functions of the lugs, and admits their ready and substantial fitting, is, for practical purposes, in every respect preferable and more advantageous.

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

The combination, with a sliding and adjustable watch-case spring, of a bearing or bridge piece, that is secured to the case and fitted by downward-extending perforated end posts or lugs to the seat of the case, substantially in the manner and for the purpose specified.

NUMA J. FELIX.

Witnesses:

PAUL GOEPEL,
C. SEDGWICK.