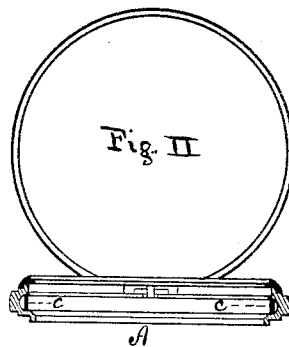
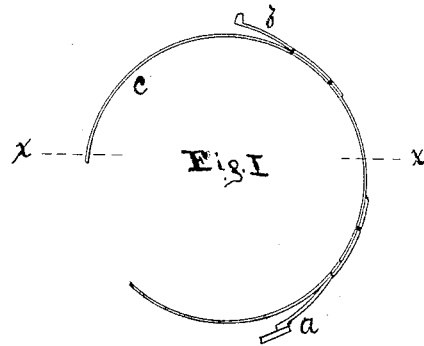


G. H. BANISTER.
Watch-Case Spring.

No. 218,215.

Patented Aug. 5, 1879.



Witnesses:

Oliver Drake.

Charles H. Peck.

Inventor:

George H. Banister.

By O. Drake, Atty.

UNITED STATES PATENT OFFICE.

GEORGE H. BANISTER, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN WATCH-CASE SPRINGS.

Specification forming part of Letters Patent No. **218,215**, dated August 5, 1879; application filed May 26, 1879.

To all whom it may concern:

Be it known that I, GEORGE H. BANISTER, of the city of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Watch-Case Springs, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to diminish the cost of the construction and application of watch-case springs, and to facilitate the process and lessen the expense of repairing or of inserting a new one if a spring gets broken, and also to give increased support and strength to the center of the case, and to render the polishing of the inner circumference of the center unnecessary.

The accompanying drawings illustrate the nature of the invention, in which Figure 1 is a top edge or plan view of the improvement detached from the center; and Fig. 2 is a vertical cross-section of the same taken through line *x*, and also showing its position in the case or center.

The invention consists in combining either the lock-spring *a* or the throw-up spring *b*, or both, with and securing them to a metallic band, *c*, which completely encircles the inner circumference of the center *A*, or nearly so, and is capable of being adjusted therein and removed therefrom at pleasure, or when repairs are needed; and to this end it is parted and is susceptible of a certain amount of elas-

ticity in order to keep it snugly in its place in the center.

The encircling band greatly strengthens and supports the center, especially so when the latter is very light and liable to spring or get bent, and it is more easily polished than the inner surface of the center, and, the springs being riveted or otherwise secured to the band, it does not require skilled labor, either to construct or repair the device, or to adjust it in or remove it from the case.

When the band is adjusted in its proper position in the center it is intended that its ends shall meet, or nearly so, and they may be cut off when necessary to fit a smaller case, and may be adjusted in a moment by compressing the bands sufficiently, as will be readily understood.

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

1. The combination, with a watch-case, of the metallic band having the springs attached thereto and capable of being adjusted in said watch-case and removed therefrom, as set forth.

2. As an article of manufacture, the metallic band *c*, having the springs *a b* attached thereto in the manner and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of May, 1879.

GEORGE H. BANISTER.

Witnesses:

OLIVER DRAKE,
CHARLES H. PELL.