(No Model.)

V. NIVOIS.

WATCHCASE SPRING.

No. 499,564. Patented June 13, 1893.

Fig. 1

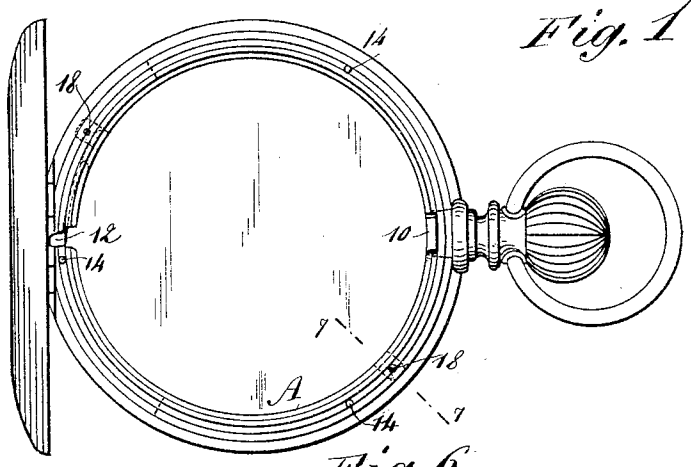


Fig. 8

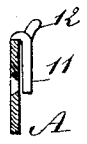


Fig. 6

Fig. 2

Fig. 3

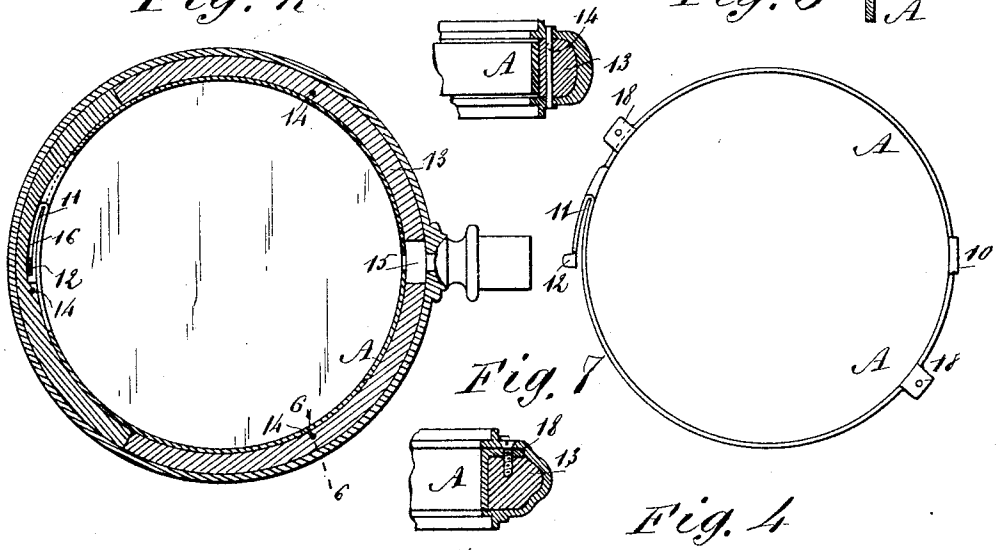


Fig. 7

Fig. 4

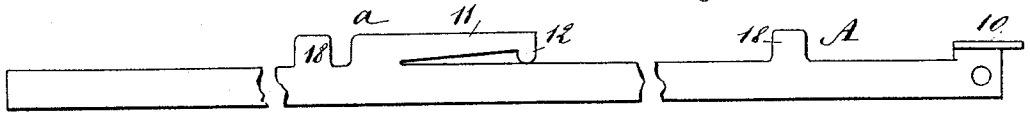


Fig. 5

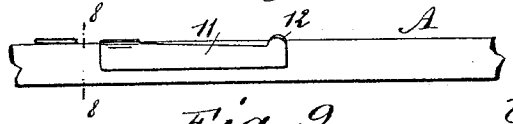
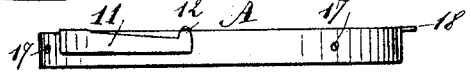


Fig. 9



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VICTOR NIVOIS, OF BROOKLYN, NEW YORK.

WATCHCASE-SPRING.

SPECIFICATION forming part of Letters Patent No. 499,564, dated June 13, 1893.

Application filed September 7, 1892. Serial No. 445,267. (No model.)

To all whom it may concern:

Be it known that I, VICTOR NIVOIS, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Watchcase-Centers and Springs Therefor, of which the following is a full, clear, and exact description.

My invention relates especially to an improvement in watch case centers, and it has for its object to provide a spring which will serve, when in use, as a dust band, and to combine in one piece a dust band, lift spring and release spring, and to so unite these parts that they will be produced from a single piece of metal, and when formed therein they may be expeditiously, conveniently and accurately fitted in the center of the case.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of a center of a watch case, one of the covers being open and illustrating the application of the improvement to the center. Fig. 2 is a diametrical section taken entirely through the center and the attachments thereto. Fig. 3 is an edge view of the improved spring. Fig. 4 is a partial plan view of the spring as it appears when cut from the blank. Fig. 5 is an exterior view of that portion of the spring at which the lift spring is located. Fig. 6 is a section taken practically on the line 6—6 of Fig. 2. Fig. 7 is a section similar to Fig. 6, illustrating a different cross sectional shape of the center and the segments employed. Fig. 8 is a section taken through the spring practically on the line 8—8 of Fig. 5; and Fig. 9 is a side view of the complete spring shown in Fig. 3.

In carrying out the invention the spring A, is made from one strip of metal, as shown in Fig. 4. At one end of the strip the releasing head 10, is located, which is of the usual formation and is operated by the pendant in the usual manner, for releasing the front cap of the case, and when the latter is closed locks it in place.

The lift spring 11 is integral with the encircling band or that carrying the release spring, or head and this is accomplished by first forming a tongue *a* upon one side of the strip A, comprising the body of the spring, as is shown in Fig. 4. This lift spring is then bent over upon the outer surface of the strip A, as shown in Fig. 5, and the free end of the tongue is bent upward from the strip and outward therefrom and shaped as a head 12, the said head being adapted to exert pressure in the manner usual to a lift spring, acting upon the hinge of the front cover or back of the case.

It is obvious that at one operation, with a spring constructed as above set forth, a dust band, releasing spring or head and lift spring may be expeditiously and conveniently fitted in a watch case center, thus avoiding the use of a number of springs, and also the expense and the time necessary for attaching a lift spring to an encircling band or spring for a center.

With reference to the segments 13 they are made of a baser metal than that of which the case is constructed. They are intended to be fitted in the center, and to conform strictly in cross section with the inner cross sectional contour of the center, as shown in Figs. 6 and 7. These segments while fitting snugly in the center and conforming strictly thereto, are removable, as they are held in place only by a pin 14, or the equivalents thereof, as shown in Fig. 6. The segments are so fitted as to leave a space 15 for the head 10 of the spring A, which constitutes the releasing portion of the spring; and a cavity 16, is likewise formed in one of the segments for the reception of the lift spring and to admit of its outward passage. The body portion of the spring, or that portion constituting a dust band, is screwed or otherwise attached to the segments and completely conceals them.

The spring A may be secured in the center in any approved manner, as for instance screws may be passed through apertures 17 in the body of the spring as shown in Fig. 9, the screws passing into the segments, when employed, or into bridges or other supports

produced in the center. Preferably however the body of the spring is provided with flanges 18 extending outwardly at an angle to it, as shown in Figs. 1, 3, 4 and 7, and screws are passed through the center and into or through the flanges. By this means the inner surface of the spring is left smooth.

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

1. A dust-guard-and-spring blank consisting in the strip of spring metal formed at its middle at one edge with longitudinal tongue *a* integral at its inner end with the said strip, spaced from the edge of the strip beyond its point of juncture therewith and formed at the inner edge of its free end with a lateral projection 12, lugs 18 projecting from the same edge of the strip as the tongue and a lateral projection 10 on the same edge of the strip at one end thereof, substantially as set forth.

2. A dust guard and spring consisting in the band or hoop A provided on its outer face at its middle with a lift spring 11 integral at one side of its inner end with said band or hoop and projecting approximately tangentially from said point of attachment and formed at its free end with a laterally and outwardly curved projection 12, and a retaining head 10 at one end of the band or hoop, substantially as set forth.

VICTOR NIVOIS.

Witnesses:
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