(No Model.)

N. J. FELIX.

WATCHCASE SPRING.

No. 500,325. Patented June 27, 1893.

Fig. 1.

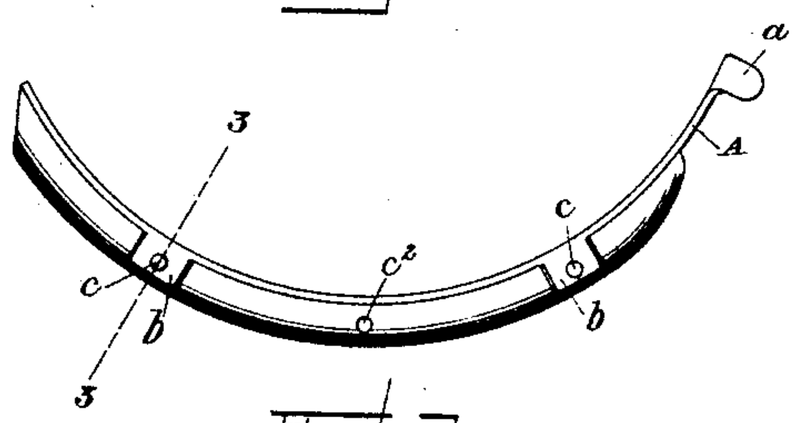


Fig. 2.

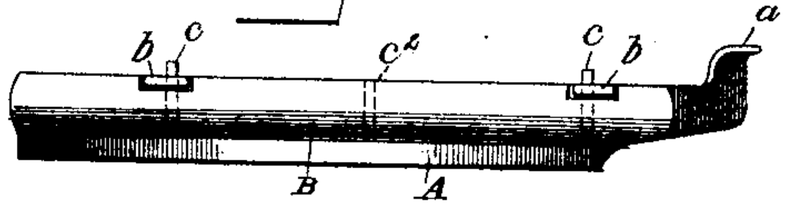


Fig. 3.

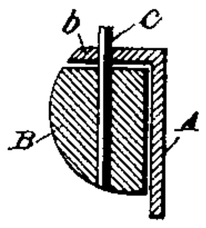


Fig. 4.

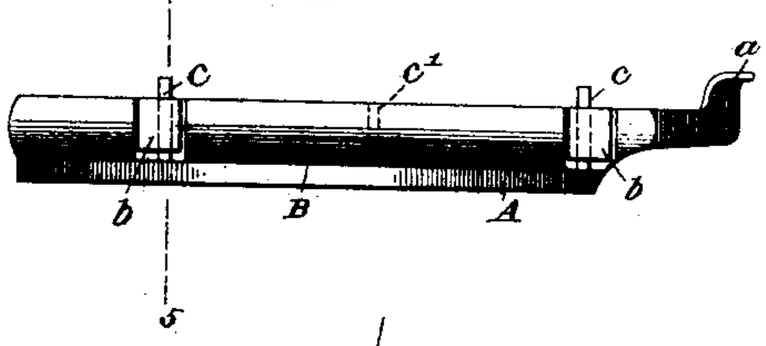


Fig. 6.

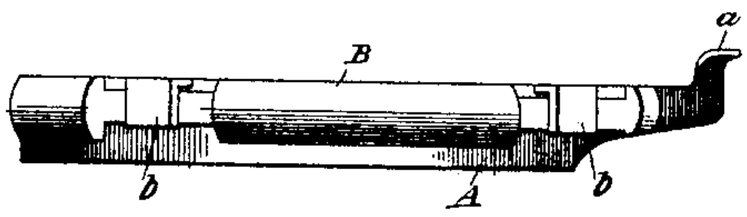


Fig. 5.

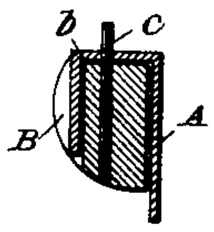


Fig. 7.

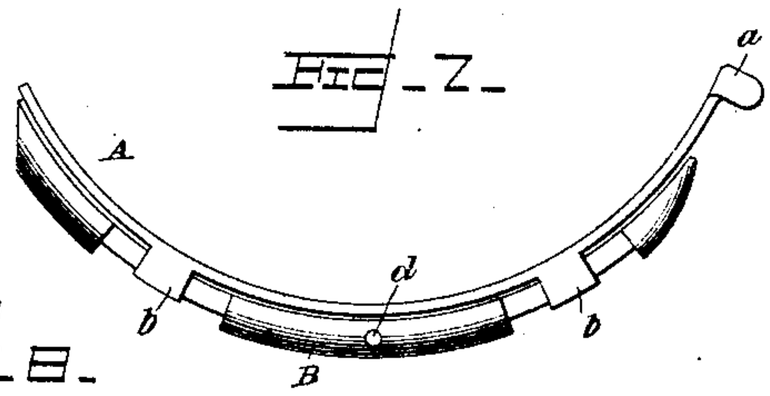
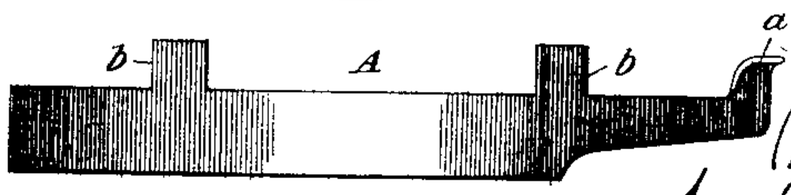


Fig. 8.



Witnesses

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UNITED STATES PATENT OFFICE.

NUMA J. FELIX, OF BROOKLYN, NEW YORK.

WATCHCASE-SPRING.

SPECIFICATION forming part of Letters Patent No. 500,325, dated June 27, 1893.

Application filed December 7, 1891. Serial No. 414,315. (No model.)

To all whom it may concern:

Be it known that I, NUMA J. FELIX, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Watchcase-Springs, of which the following is a specification.

My invention relates to an improvement in watch-case springs, the object of the same being to provide an article of this character which shall be provided with a backing and so constructed that the blade or spring proper may be secured to said backing and to the case center without the necessity of drilling holes in said blade, which as is well known, tends to weaken and materially shorten the life of the spring.

With this and other ends in view my invention consists in certain novel features of construction as will be hereinafter described and pointed out in the claim.

In the accompanying drawings, Figure 1 is a plan view of my improved spring. Fig. 2 is a side view of the same. Fig. 3 is a sectional view thereof, taken on the line 3—3 of Fig. 1. Fig. 4 is a side view of a modification. Fig. 5 is a sectional view thereof taken on the line 5—5 of Fig. 4. Fig. 6 is a side view of another modification. Fig. 7 is a sectional view thereof taken on the line 7—7 of Fig. 6. Fig. 8 is a side view of the spring prior to the attachment of the backing.

In the drawings and specification I have shown and described my invention as applied to the lift spring of a watch-case, but it will be obvious to those skilled in the art, that it is equally well adapted for use in connection with the catch spring, and hence I do not limit my claim to either application.

A represents a blade or spring proper, constructed of thin sheet metal, properly tempered, and provided on one end with the curved lip or projection *a*, adapted to bear on and raise the lid of a watch case when released by the catch, said spring being curved or bent to conform to the shape of a watch-case center.

On the upper edge of the blade A, are formed one or more lugs or projections *b*, two being preferable, as shown in Fig. 8, which are bent over as shown in Fig. 1 and fit in recesses cut in a backing B, preferably made of brass and curved to conform to the shape of the spring and nicely fit thereon. After the lugs *b* have been bent over as shown in Fig. 1, the upper surface thereof can be slightly filed off, giving an approximately straight edge to the spring, and fitting flush with the upper surface of the backing B. Small pin or screw holes are then bored through the lugs *b* and through the backing for the reception of the pins or screws *c*, which may also pass through the case center and thus hold the several parts in their proper positions, and this without any drilling of the spring proper A, or the backing may be drilled as at c^2 for the retaining pin. If desired, the outer side of the backing B may be also slightly cut out, and the lugs *b* bent downwardly to fit therein as shown in Fig. 4. In this case the two pins may be omitted and only one used, the backing being drilled at any desired point to receive it, as for instance at *c'*. Again, if desired, the cut-out portions of the backing may be lengthened as shown in Figs. 6 and 7, and the backing allowed to slide on the spring a short distance in either direction, which serves to render the spring a desirable one for "jobbing" purposes, as the hole *d* therein for the reception of the retaining pin can be made to register with the pin hole formed in the case center by slightly shifting the backing B on the blade A.

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

A watch case spring, comprising the spring proper A, formed of properly tempered thin sheet metal and provided at one end with the curved lip or projection *a*, said spring being curved or bent to conform to the shape of the watch case center, the lug or lugs *b*, formed on the upper edge of the plate A, said lugs being adapted to be bent over as shown and fit into the recesses formed in the backing B, the metallic backing B, curved to conform to the shape of the spring and nicely fit thereon, the pin or screw hole formed in the lugs *b* and in the backing and adapted to receive the pin or screw *c* which hold the several parts in their proper position, substantially as described.

Signed at New York, in the county of New York and State of New York, this 5th day of December, A. D. 1891.

NUMA J. FELIX.

Witnesses:
GEORGE COOK,
B. P. STRATTON.