

(No Model.)

P. A. FLORIMONT.
WATCH CASE SPRING.

No. 441,833.

Patented Dec. 2, 1890.

Fig. 1.

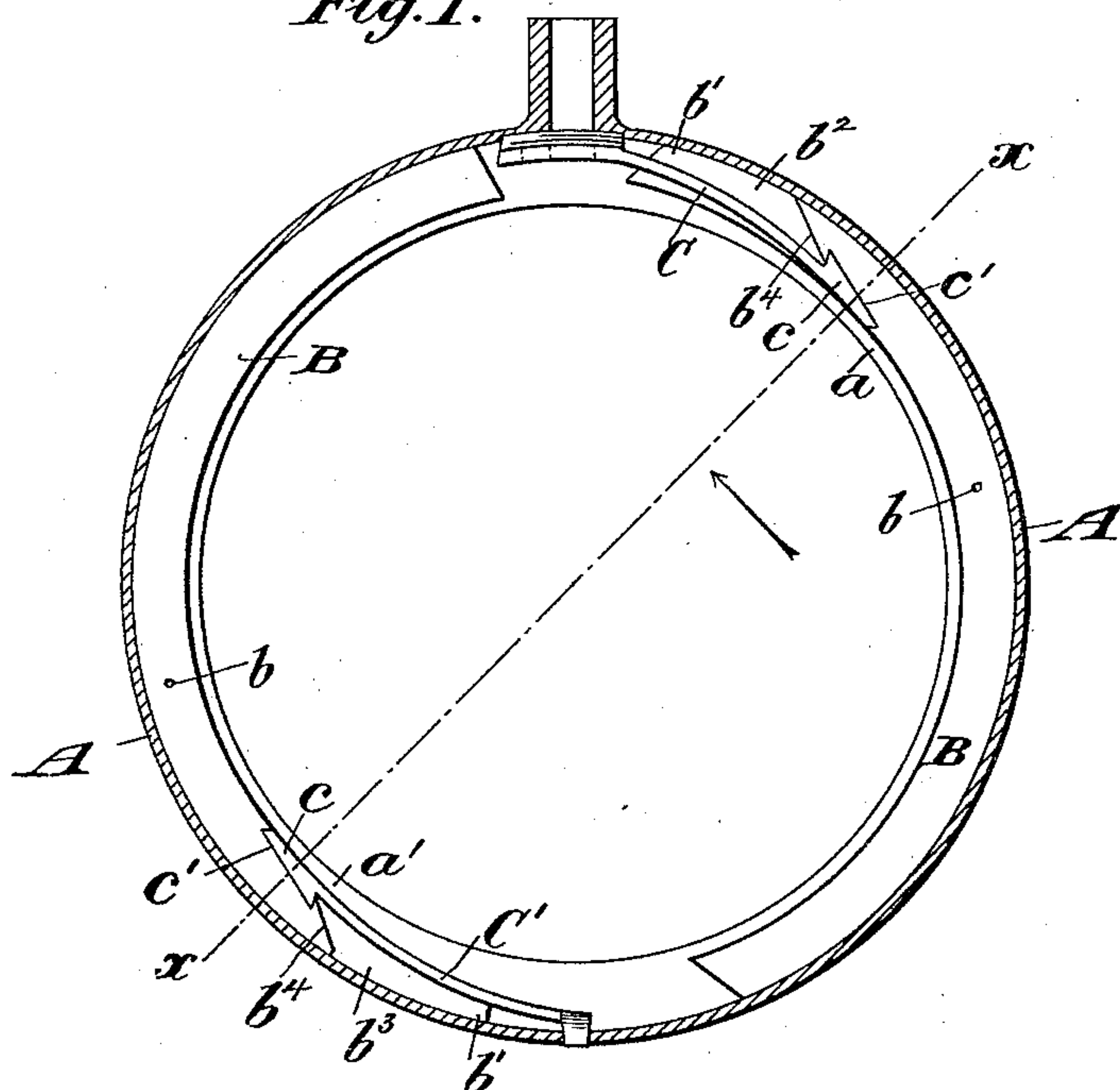


Fig. 2.

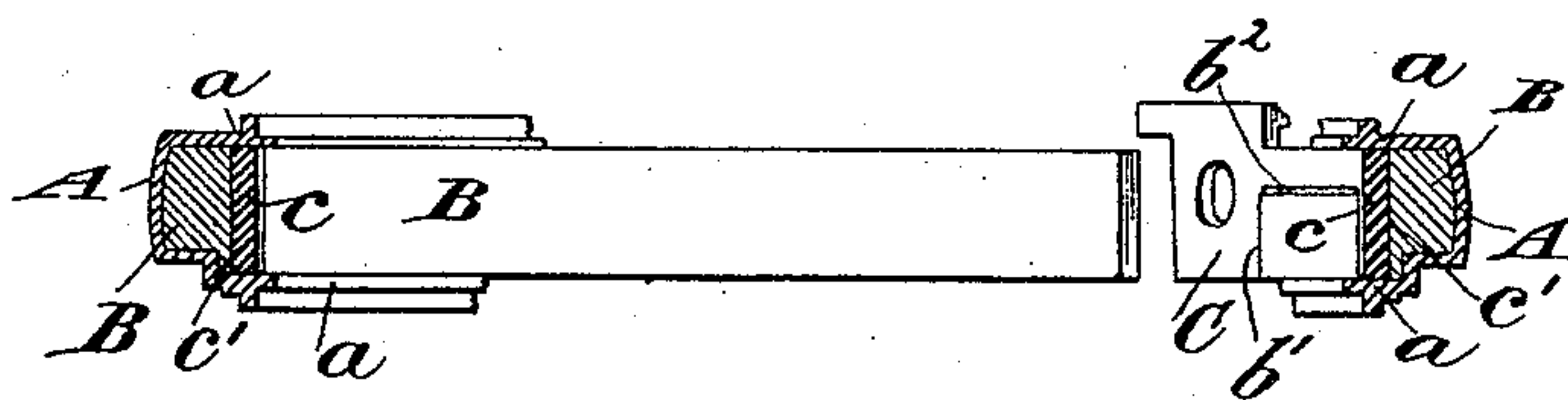
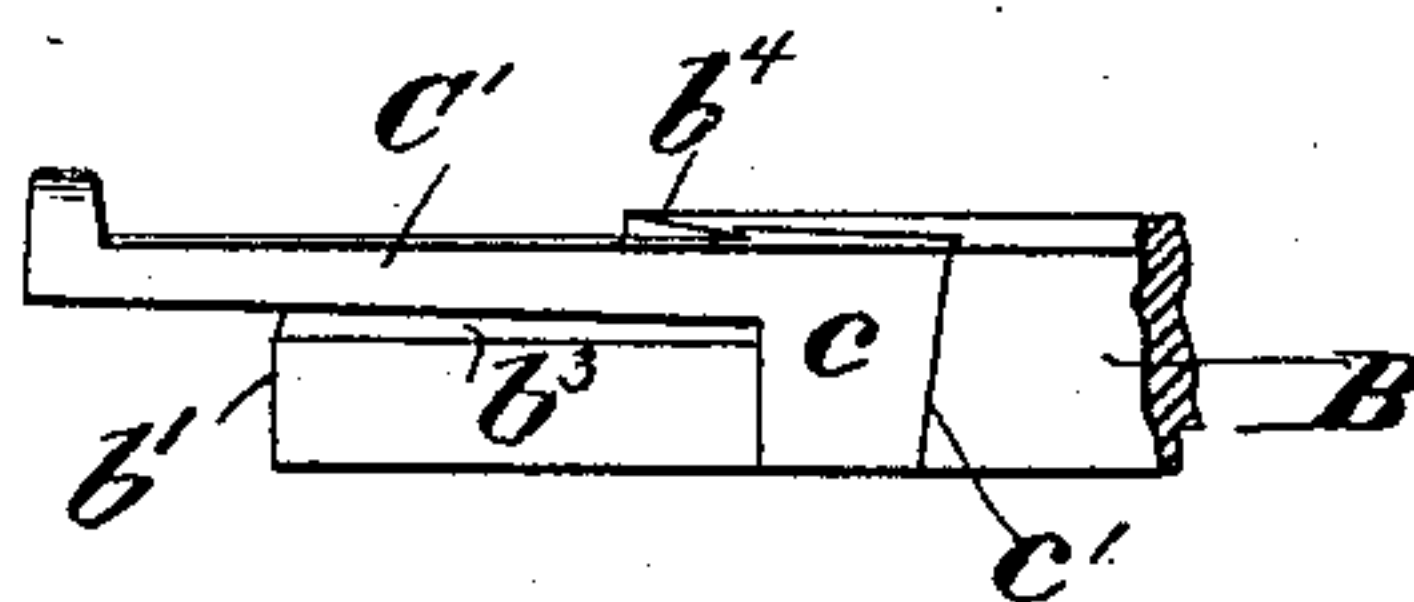


Fig. 3.



Witnesses:-
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UNITED STATES PATENT OFFICE.

PETER A. FLORIMONT, OF BROOKLYN, NEW YORK.

WATCH-CASE SPRING.

SPECIFICATION forming part of Letters Patent No. 441,833, dated December 2, 1890.

Application filed June 28, 1890. Serial No. 357,039. (No model.)

To all whom it may concern:

Be it known that I, PETER A. FLORIMONT, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Watch-Case Springs, of which the following is a specification.

My invention relates to an improvement in watch-case springs in which the spring is formed in two parts, whereby the resilient portion may be readily adjusted, removed, and renewed and the original cost and expense of renewal materially reduced.

A practical embodiment of my invention is shown in the accompanying drawings, in which—

Figure 1 is a sectional view of a watch-center, showing the springs located therein in operative adjustment. Fig. 2 is a transverse section through line $x x$ of Fig. 1; and Fig. 3 is a view in perspective of a portion of the spring, showing the connection therewith of the resilient portion.

A represents the outer rim of a watch-center, provided, as is usual, with inwardly-projecting flanges at its opposite edges.

The body portions B of the springs are shaped to seat within the center, as is usual, and may be provided with suitable fastenings b to hold them in position therein. Instead, however, of tapering the body portions B gradually into a resilient end portion to form the lock and the fly-springs, as has been heretofore the common construction, I so construct the said body portions that they will conform to the inner wall of the center up to points in proximity to the positions which the free ends of the lock and fly springs are to occupy and there stop them short, as shown at b' . For a suitable distance back from the extremities b' of the body portions I cut away the sides of the body portions, as shown at $b^2 b^3$, the said reduced portions $b^2 b^3$ forming oblique shoulders b^4 at the points where the body portions resume their full width. For the purpose of guiding the resilient tongues or blades of the springs, to which I shall hereinafter particularly refer, I form the bottom of the recess b^2 substantially on a plane with the side of the body portion, as the movement of the locking-blade will naturally be simply forward and backward from the center, while

the bottom of the recess b^3 is formed with a gradual upward incline from the inside toward the outer side of the body portion to correspond with the natural movement of the resilient fly-spring.

C represents the shank of the resilient or blade portion of the locking-spring, and C' the shank of the resilient or blade portion of the fly-spring. In each instance the shanks are provided at their ends toward the body portions with laterally-extending dovetailed lugs or plates c , which register with corresponding dovetailed recesses c' , formed in the inner faces of the body portions B. While the sides or flanges a of the center would hold the said resilient portions in position after the body portions had been adjusted, even so the dovetailed recesses c' and the corresponding dovetailed lugs or plates c would be of the same width throughout their lengths, and I find it preferable to form said recesses c' and the lugs or plates which fit therein of taper form, as shown, so that the resilient portions C C' may be set therein and retained against liability of displacement, while the body portions, with the resilient portions attached thereto, are being seated within the center.

By constructing the springs as herein described the greater or body portions may be formed of an inferior metal, while the lesser or resilient portions may be tempered evenly throughout, and in case of breakage of said resilient portions they may be renewed in less time, with less work, and at a comparatively reduced cost. This construction, furthermore, admits of the adaptation of the resilient portions such as herein shown to springs of the ordinary structure where the reduced and resilient ends have become broken, by simply forming the dovetailed recesses c' in the body portion of such ordinary broken spring and inserting one of the resilient portions, as herein shown, therein. The resilient portion for such purpose becomes in itself a complete article of manufacture, and as such may be sold to the trade for use in connection with body portions of the old or other suitable structure.

What I claim as my invention is—

1. The combination, with a watch-center, of a spring secured therein, said spring con-

sisting of a body portion and a resilient portion, the said body and resilient portions being interlocked with each other by a tongue-and-groove connection extending transverse
5 of the end of the spring, substantially as set forth.

2. The combination, with the body portion of the spring, provided with a taper dovetailed recess extending transversely along its

inner wall, of a bar-spring provided with a 10 dovetailed laterally-extending lug or plate adapted to register with the said recess, substantially as set forth.

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Witnesses:

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