

(No Model.)

C. NOBS.  
WATCHCASE SPRING.

No. 517,554.

Patented Apr. 3, 1894.

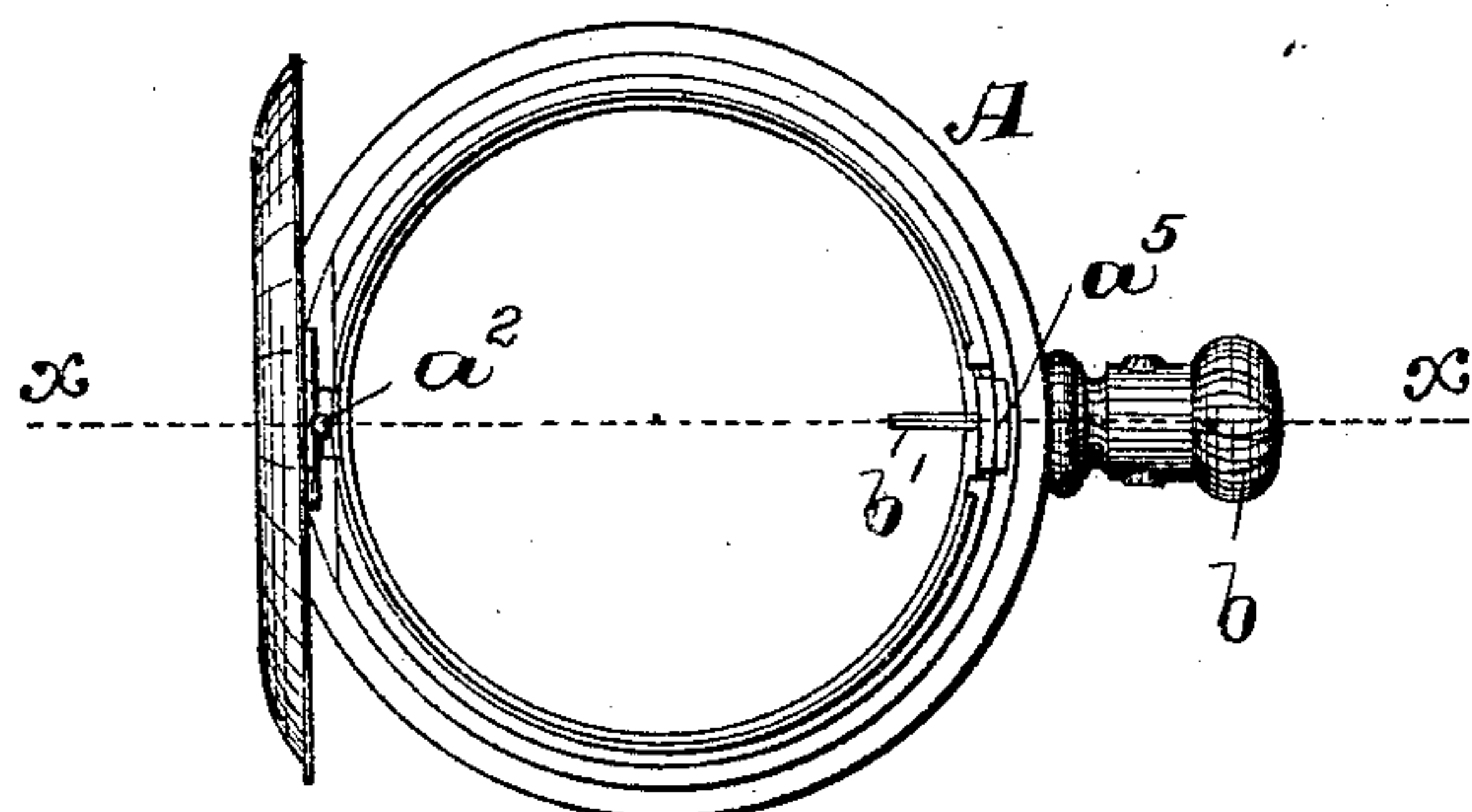


Fig. 1

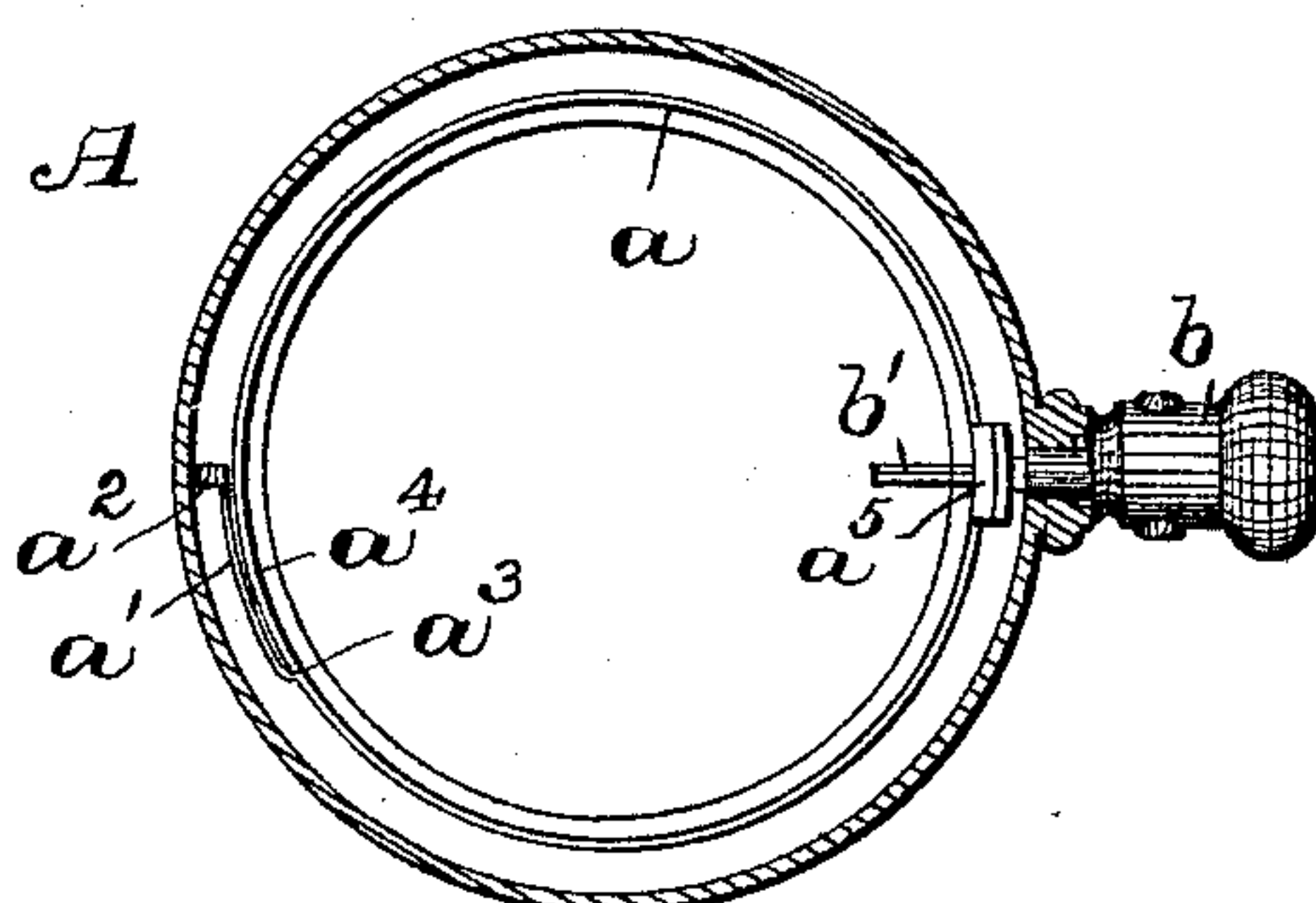


Fig. 2

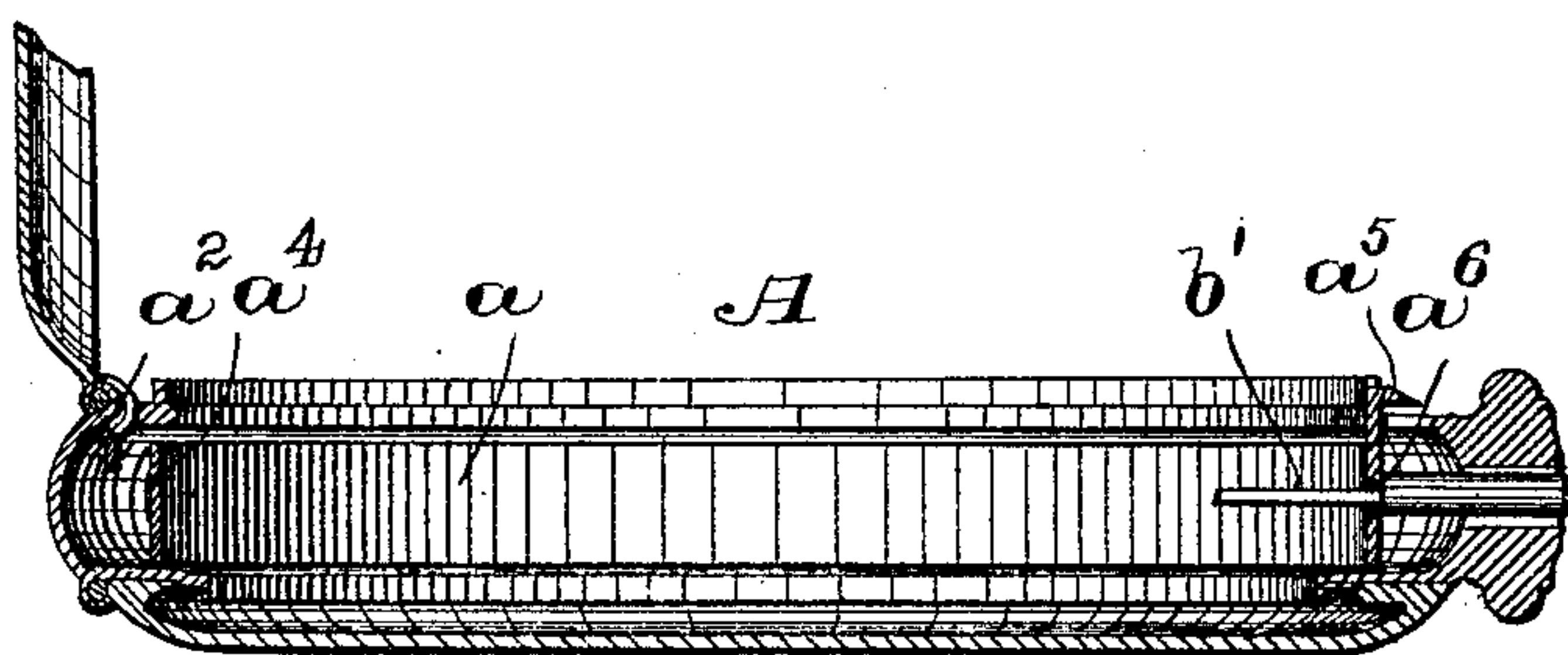


Fig. 3

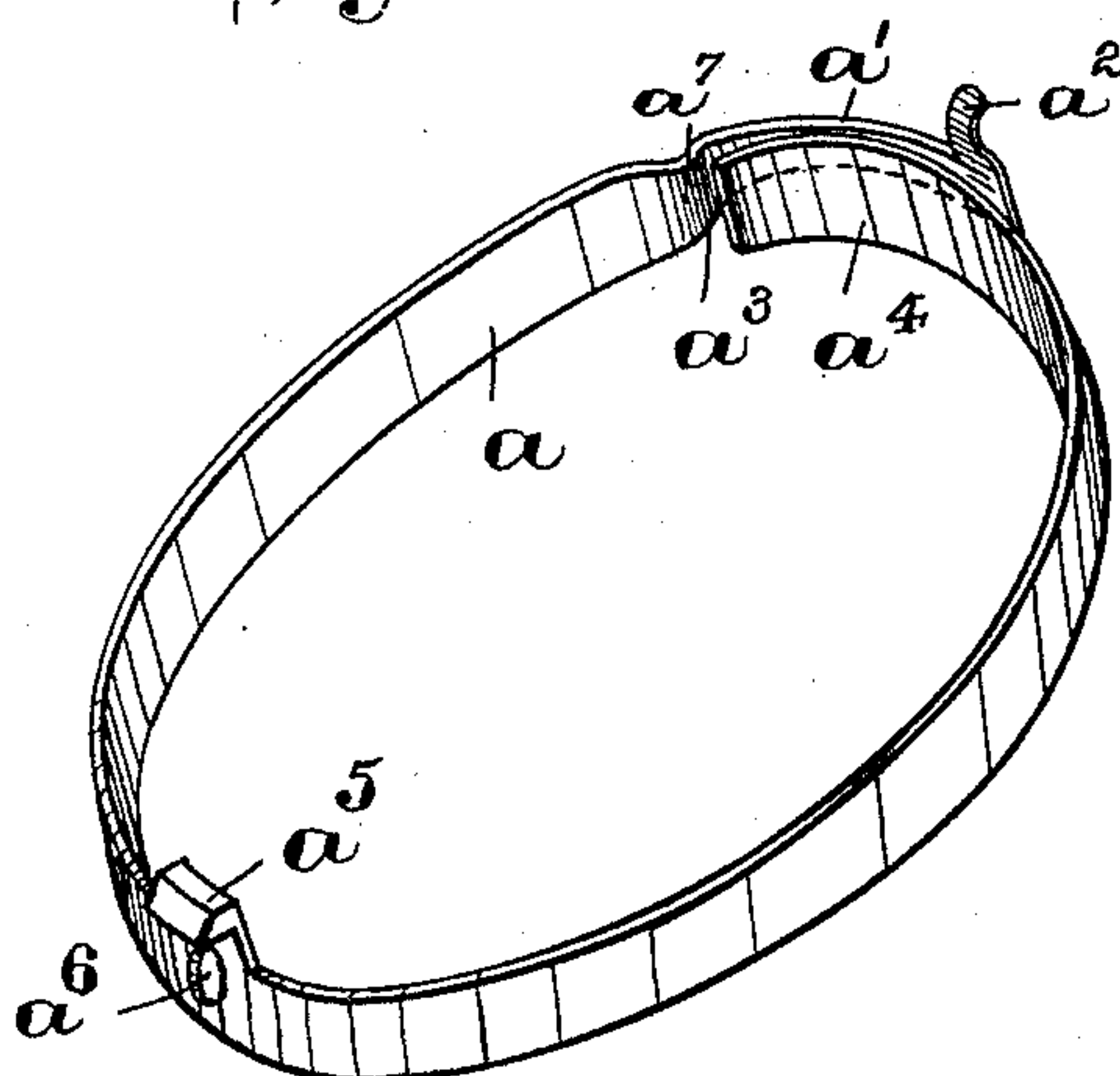


Fig. 4

WITNESSES:

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INVENTOR:

Charles Nobs,  
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# UNITED STATES PATENT OFFICE.

CHARLES NOBS, OF NEWARK, NEW JERSEY.

## WATCHCASE-SPRING.

SPECIFICATION forming part of Letters Patent No. 517,554, dated April 3, 1894.

Application filed June 19, 1893. Serial No. 478,044. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES NOBS, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in a Combined Watchcase-Spring and Dust-Guard; 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.

My invention relates to improvements in watch-case springs, and has for its object to provide a combined watch-case spring and dust-guard, which shall be adapted to fit any size of watch movement, being adapted to be secured in a simple and effective manner without the use of pins or screws, so that it will not be subject to accidental displacement, distortion or breakage.

In watches as now ordinarily made, two case springs are used, one, for forcing the case open and the other for holding the watch case or lid in its closed position.

My invention has for its main purpose to avoid the use of two such springs and to combine the two in one, and the one end of the spring, when in position in the casing, overlapping the thinner end-portion, thereby virtually forming a spring of the same width, encircling the watch movement and serving as a complete dust-guard.

The invention therefore has for a further object to provide an economical, durable and efficient watch-case spring of approximately uniform thickness and width, which is not liable to break or lose its requisite elasticity, being held within the case center by the movement-holding ring in such a manner, that its one end acts as a fulcrum to cause the opening of the lid, while the other end of the spring engages or comes in contact with the lid or cover of the watch case to hold it in its closed position.

The application of my improved form of watch-case spring to a watch-case is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a watch-case with the cap or cover in its open position and the movement holding ring being removed, said view clearly illustrating the arrangement of the operating ends of the spring to cause the opening of the cover or its locked engagement with the spring. Fig. 2 is a horizontal section of the watch case clearly illustrating in position therein my improved form of watch-case spring. Fig. 3 is an enlarged vertical section taken on line *x* in Fig. 1, and Fig. 4 is a perspective view of my improved form of watch-case spring.

Similar letters of reference are employed to indicate corresponding parts in each of the above described views.

In the drawings, A indicates the watch-case which may be of any ordinary form of construction and *a* is my improved form of watch-case spring, bent to conform with the contour of the watch-case, provided at one end with the slightly reduced portion *a'* having on its free end the usual tongue *a<sup>2</sup>* adapted to press against the lid or cover of the case and operate the same in the usual manner.

As will be clearly seen from Figs. 2 and 4, the spring at a point *a<sup>3</sup>* is made considerably wider and maintains the same width throughout its entire length, the spring being bent in such a manner that it is formed with the overlapping portion *a<sup>4</sup>* which, when the spring has been placed in position in the watch-case, securely rests behind said narrower portion *a'*, thereby forming a spring of the same width throughout, its end abutting against a stop *a<sup>7</sup>* formed in the spring at a point *a<sup>8</sup>*, and the spring thereby entirely surrounding the movement ring and serving as a complete dust guard. Said spring is provided at or near its middle with a locking tongue *a<sup>5</sup>* adapted to engage with the rim of the lid or cover of the watch-case to hold the same in its elevated position. Beneath said locking tongue *a<sup>5</sup>*, the spring *a* may be formed with a hole or perforation *a<sup>6</sup>* through which can be passed the winding spindle *b'* connected at its upper end in the usual manner to the thumb-piece or crown *b*.

Owing to the construction and the arrangement of my improved form of watch-case spring within the watch-case, and the fact



that it entirely encircles the movement ring, said spring can be forced into position and is held in such position without the use of any screws or pins, to successfully operate the lid or cover, when the crown is pressed, or to hold said lid in its locked position, as may be desired. Said locking tongue  $a^5$  being arranged at or near the middle of the spring  $a$ , any pressure exerted upon the crown will cause the spring to be forced inwardly on both sides of said holding piece, which has the great advantage that the spring will act with greater efficiency and will not be liable to break, and owing to the double action of said spring and its locking tongue thereon a greater pressure will be exerted by said tongue against the case cover or lid when closed, firmly holding the same in its locked engagement.

Having thus described my invention, what I claim is—

1. A watch case spring provided with a holding lip, and a reduced portion at one end of said spring, a tongue on said reduced portion, and said reduced portion being adapted to overlap part of the opposite and free end portion of the spring, substantially as and for the purposes set forth.

2. The combination, with the case-center of a watch case, of a case spring provided with a holding lip and a narrower portion at the one end of the case spring being connected therewith by a curved portion forming a stop and provided with a tongue, and the opposite end of said spring, when in position in the watch-case being adapted to overlap said nar-

rower portion of the spring, substantially as and for the purposes set forth.

3. The combination, with the case-center of a watch-case, of a case-spring  $a$  provided with a holding lip  $a^5$ , said spring being provided with a narrower end portion  $a'$  having a tongue  $a^2$ , and from a point, as at  $a^3$ , being of the same width throughout its length, and having a curved end-portion  $a^4$ , overlapping said narrow end-portion  $a'$ , substantially as and for the purposes set forth.

4. The herein described watch-case spring  $a$ , curved lengthwise to fit the case center of a watch, and formed with a holding lip  $a^5$ , a narrow end portion  $a'$  having a tongue  $a^2$ , and a curved end-portion  $a^4$ , adapted, when in position in the watch-case, to overlap said narrow end portion  $a'$ , substantially as and for the purposes set forth.

5. The herein described watch case spring, curved lengthwise to fit the case center of a watch, provided with a holding lip and a narrower portion at the one end provided with a tongue, said spring being curved, as at  $a^3$ , and forming a stop  $a^5$ , against which the end-portion  $a^4$  of the spring abuts while overlapping said narrow end portion, substantially as set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 14th day of June, 1893.

CHARLES NOBS.

Witnesses:

FREDK. C. FRAENTZEL,  
WM. H. CAMFIELD, Jr.