

J. LAURENT & J. MENEGAY.  
Springs for Watch-Cases.

No. 135,348.

Patented Jan. 28, 1873.

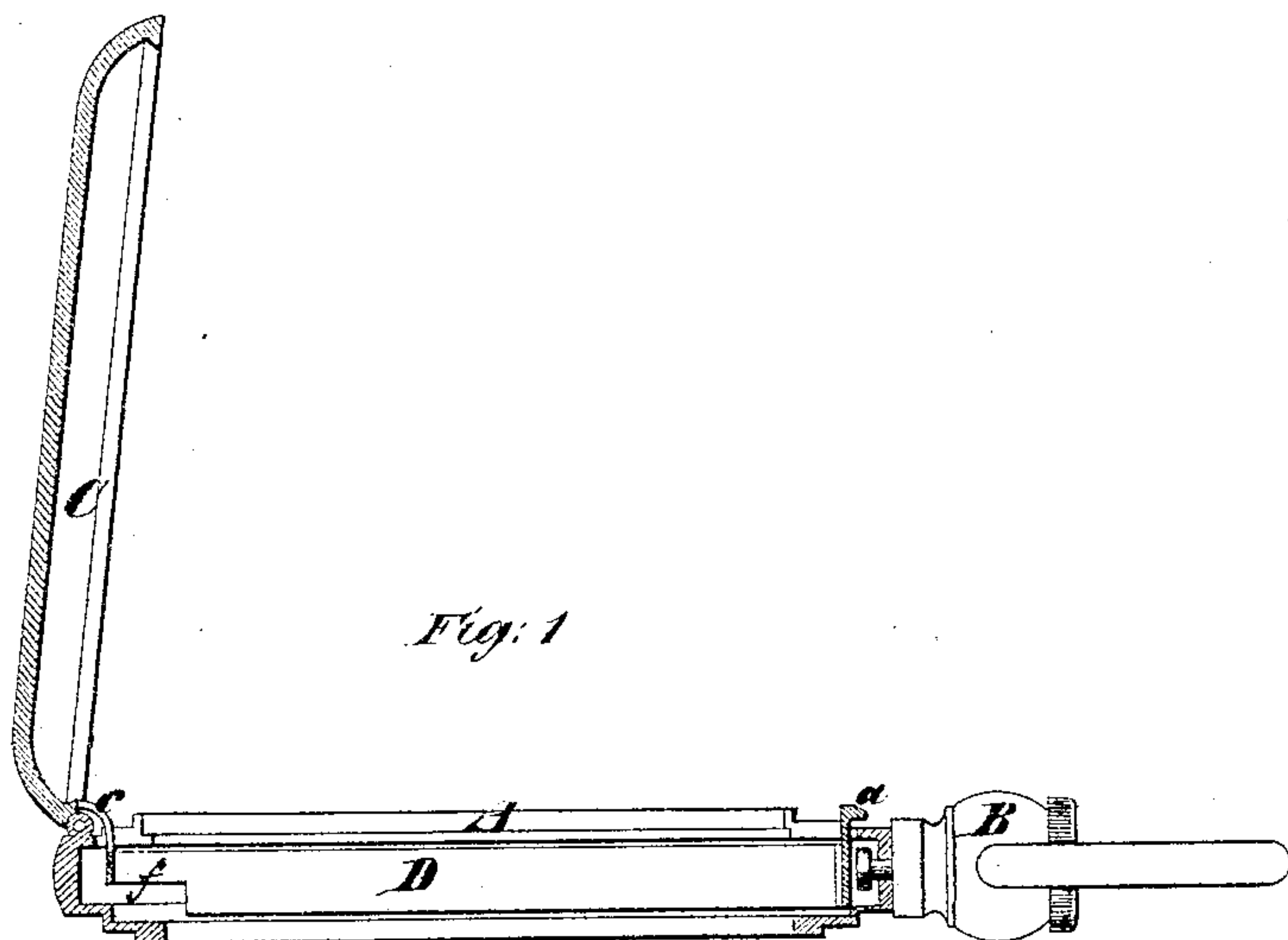


Fig: 1

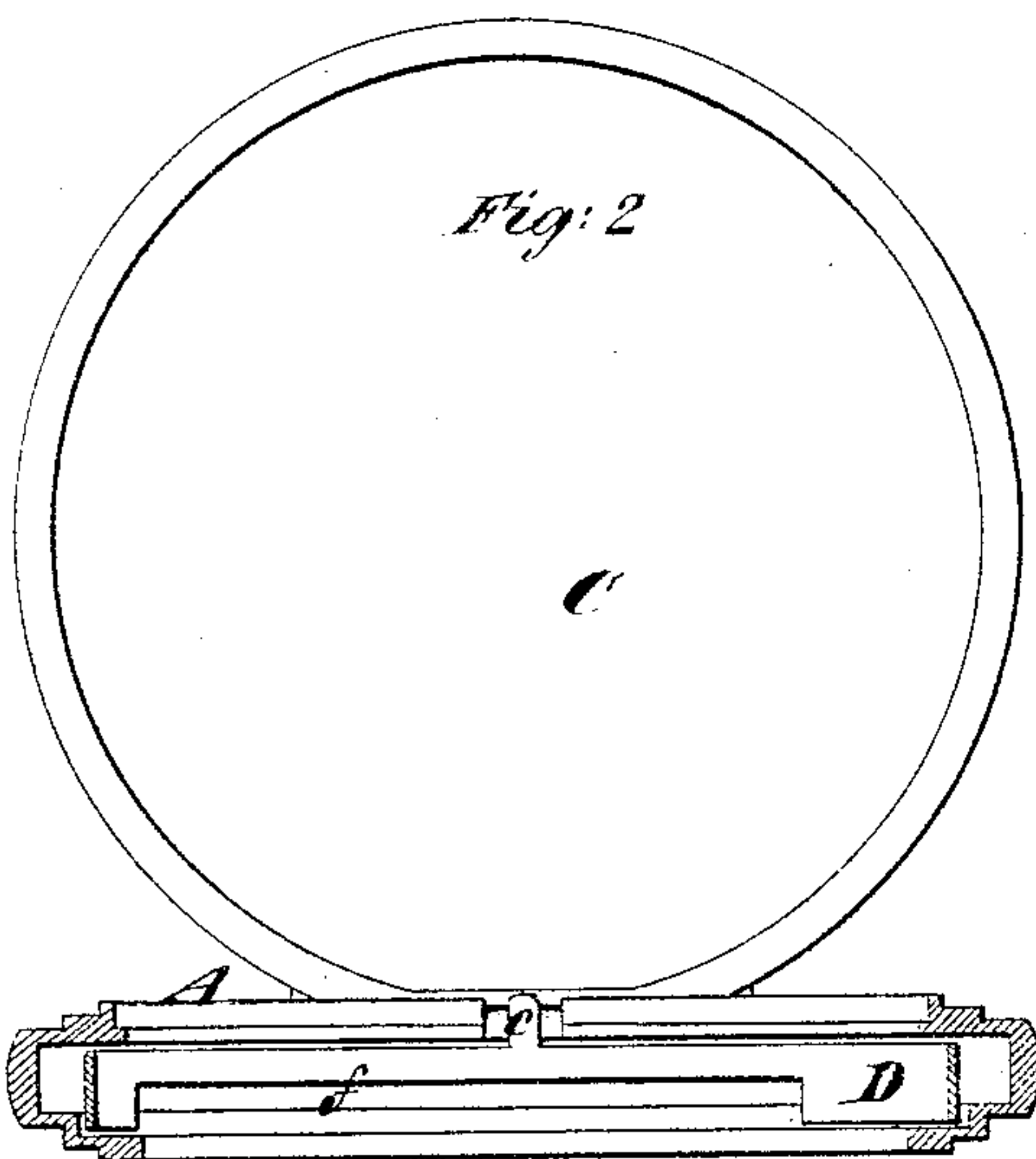


Fig: 2

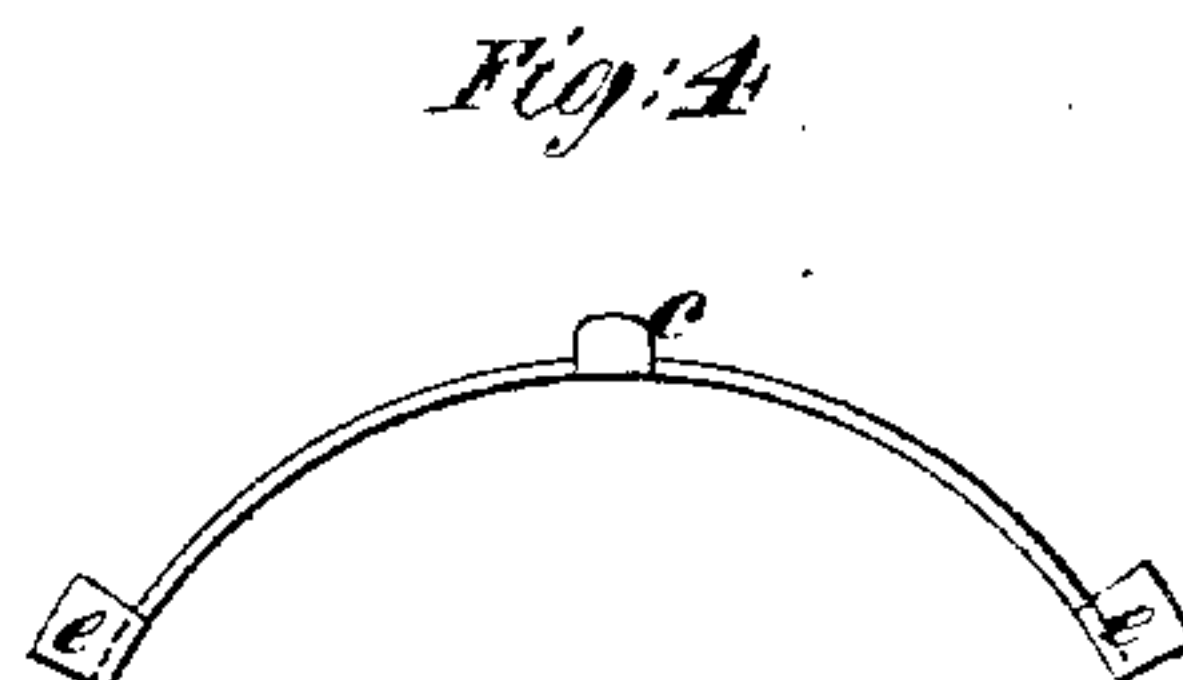


Fig: 3

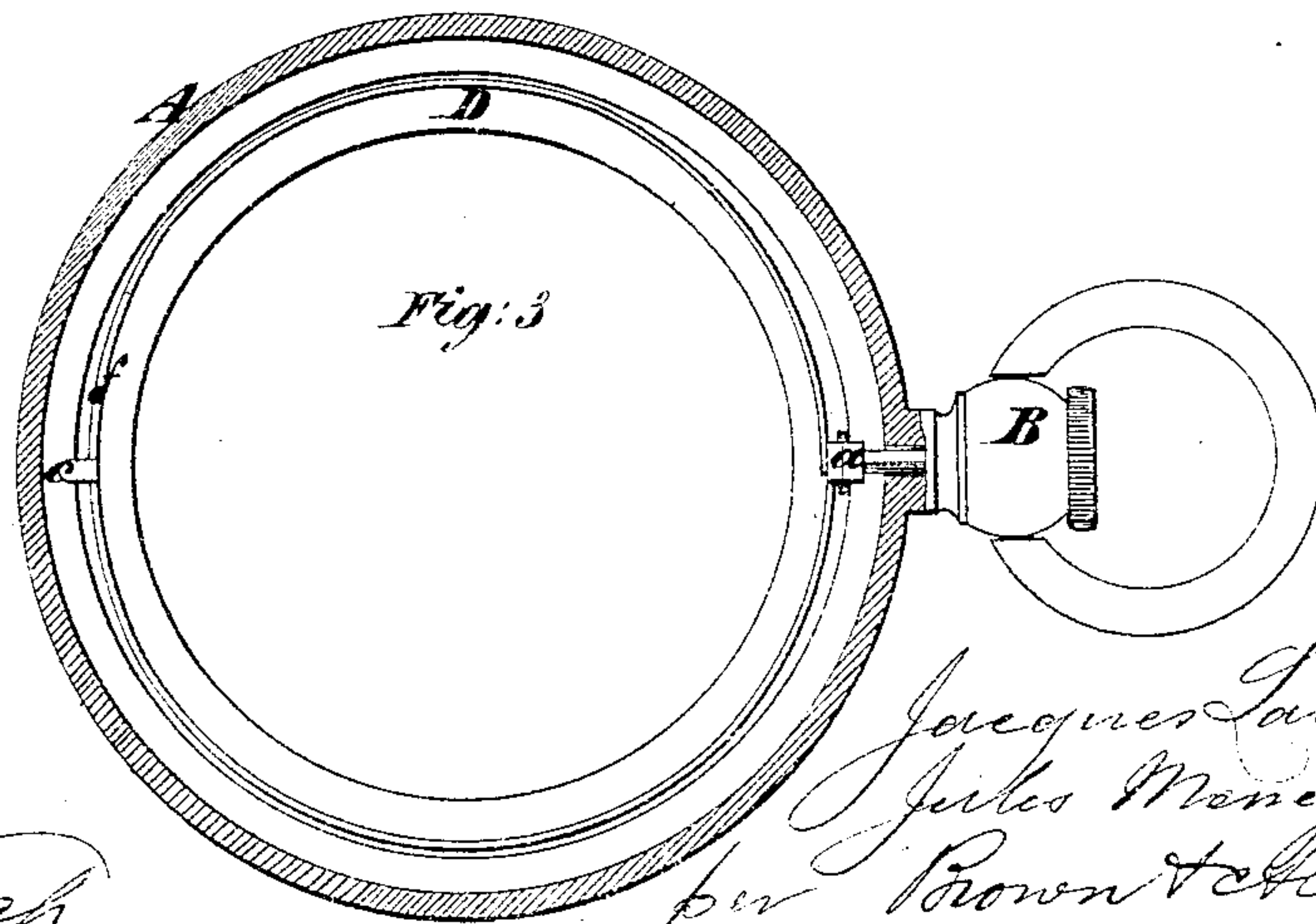


Fig: 4

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN SPRINGS FOR WATCH-CASES.

Specification forming part of Letters Patent No. 135,348, dated January 28, 1873.

*To all whom it may concern:*

Be it known that we, JACQUES LAURENT, of the city, county, and State of New York, and JULES MENEGAY, of the city of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Springs for Watch-Cases, of which the following is a specification:

This invention relates more particularly to the springs employed for throwing open the covers of watch-cases. Such springs are made of the form of an arc or bow to lie between the watch movement and the case, and have commonly been fastened at one end only and had the tongue or lip which acts on the hinge of the cover formed on the other end. Our improvement consists in the arrangement of the lip or tongue at or about the middle of the length of the spring which is secured within the case at both ends. In this way the spring becomes a double acting one, and if it should break on either side of the lip is still operative. The improvement further consists in combining with such spring, in one and the same piece, the spring and catch for securing the cover of the case when closed.

In the accompanying drawing, Figures 1, 2, and 3 illustrate the application of our improved spring in a form to serve the two purposes of opening-spring and catch-spring. Fig. 1 is a central section of a watch-case, having the spring applied, taken through the cover and handle. Fig. 2 is a similar section taken at right angles to Fig. 1. Fig. 3 is a facial section through the band or ring of said case. Fig. 4 is a plan view of a spring illustrating a modification of our invention.

Similar letters of reference indicate corresponding parts in the four figures.

A is what is termed the band of the case. It is of the usual form and is furnished with a handle, B. It has hinged to it in the ordinary manner a cover, C. D is the spring which constitutes my invention. It consists of a thin strip of steel, which may be either straight longitudinally or bent into a circular form of a greater radius than the interior of the watch-case. It is applied within the band of the watch-case, as shown in the drawing, its ends lapping as therein represented. On one end of the spring, that which is outermost, there is formed a catch or fastening, *a*, of latch-like form, which, when the cover is closed, hooks over a flange therein, and so secures it. The middle portion of the spring is reduced in

width, as shown at *f*, so that it is capable of yielding transversely. Opposite the middle of the hinge of the cover C there is formed on the adjacent edge of the spring D at the middle of its length a lip, *c*, which bears against the cover itself close to the hinge thereof, and by the elasticity of the spring forces it open. As the cover is closed the narrow or reduced portion *f* of the spring D is depressed, and at the same time is forced slightly inward. When closed the cover is fastened by means of the hook *a*, projecting over its flange. As soon as the catch *a* is unfastened by pressing on the head of the push-pin ordinarily furnished on a watch for the purpose, the elasticity of the depressed portion *f* of the spring causes it to recover its normal condition, and by means of the lip *c* the cover is opened.

When it is not desired to make the same spring serve as the opening-spring and the catch-spring, we make our improved opening-spring of the form shown in Fig. 4—viz., that of a bow or arc with the lip or tongue *c* in the middle of its length. This spring has small flanges *e e* at its ends, and will be confined at both ends by being placed between the watch-movement and the band A of the case, and will operate on the cover in the same way as the hoop-spring D. The breakage of either of these springs between the lip or tongue *c* and one end will not interfere with its action as an opening-spring, for, by reason of its being secured at both ends, the unbroken portion between the said tongue or lip *c* and the other end will still constitute a spring which, though weaker than when the other half was unbroken, is yet operative.

### *Claims.*

1. The spring for opening the cover of a watch-case, composed of an arc or bow, or greater or less portion of a hoop of steel with the lip or tongue *c*, at or near the middle of its length, substantially as herein described.

2. The combination, with the band or hoop-spring having the lip or tongue *c* at or near the middle of its length, of the catch *a* formed at one end of the said spring, substantially as and for the purpose herein described.

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