

J. JOPLING.
CLOCKWORK-TORPEDOES.

No. 173,017.

Patented Feb. 1, 1876

Fig. 1.

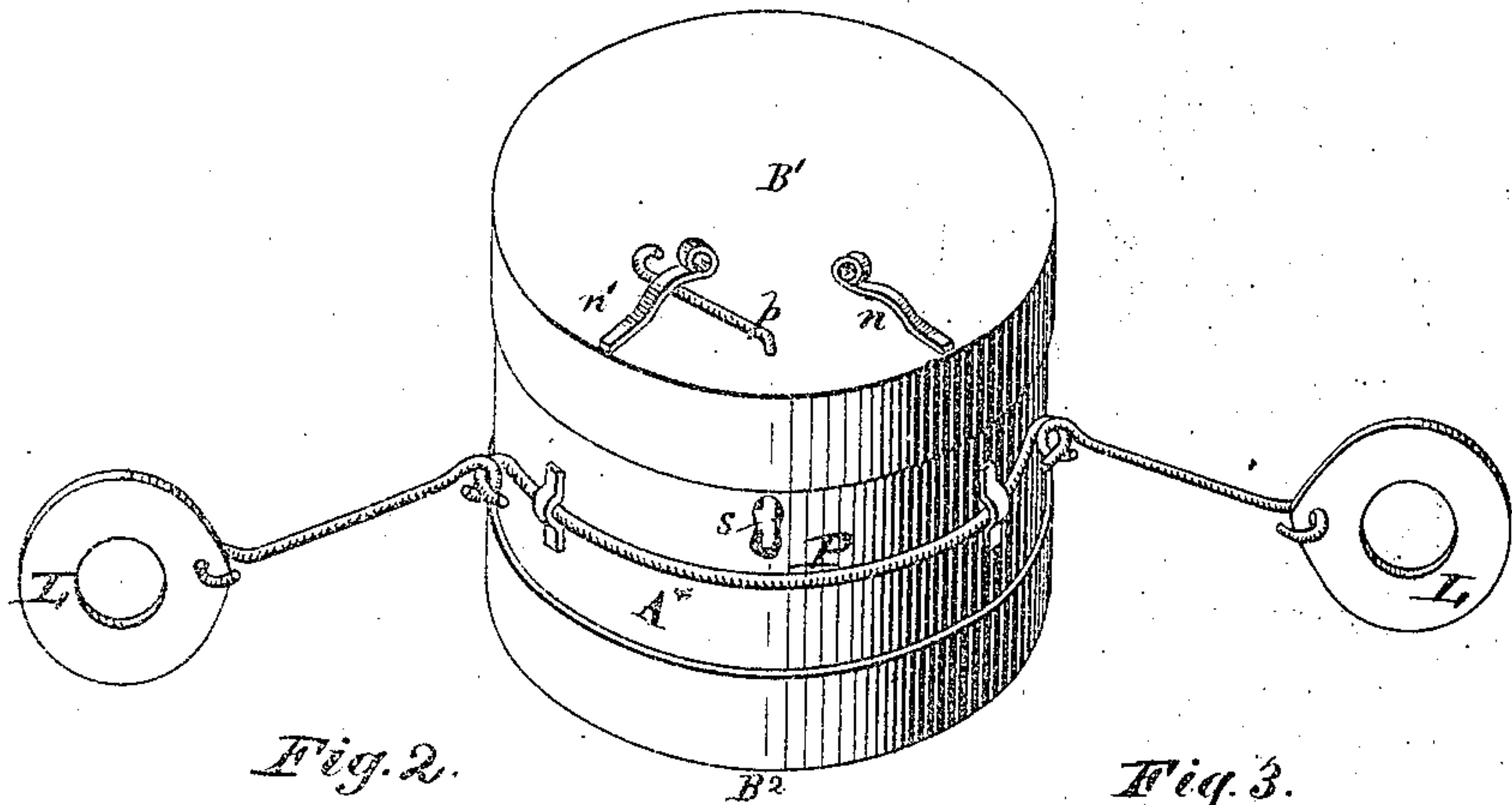


Fig. 2.

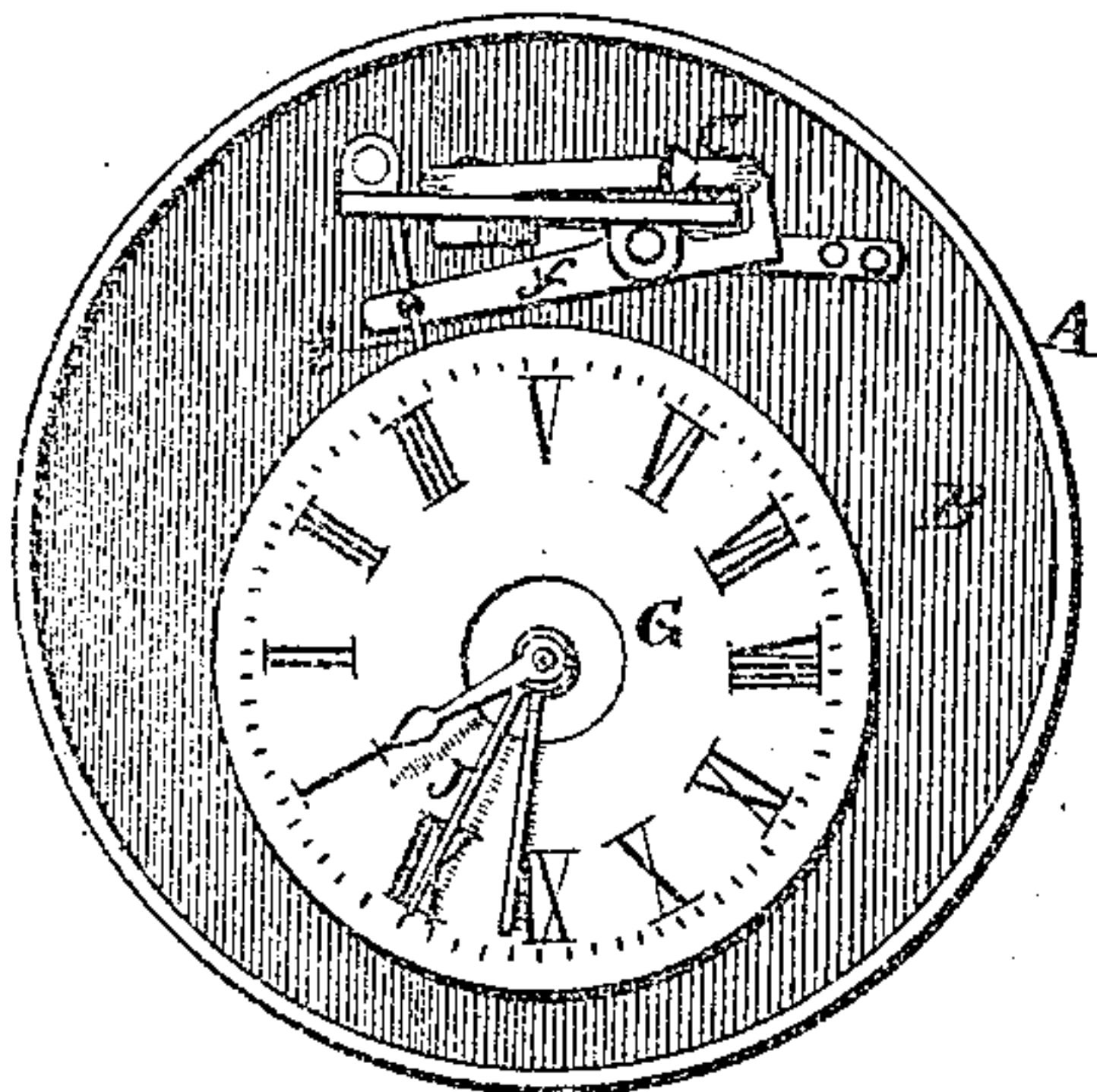


Fig. 3.

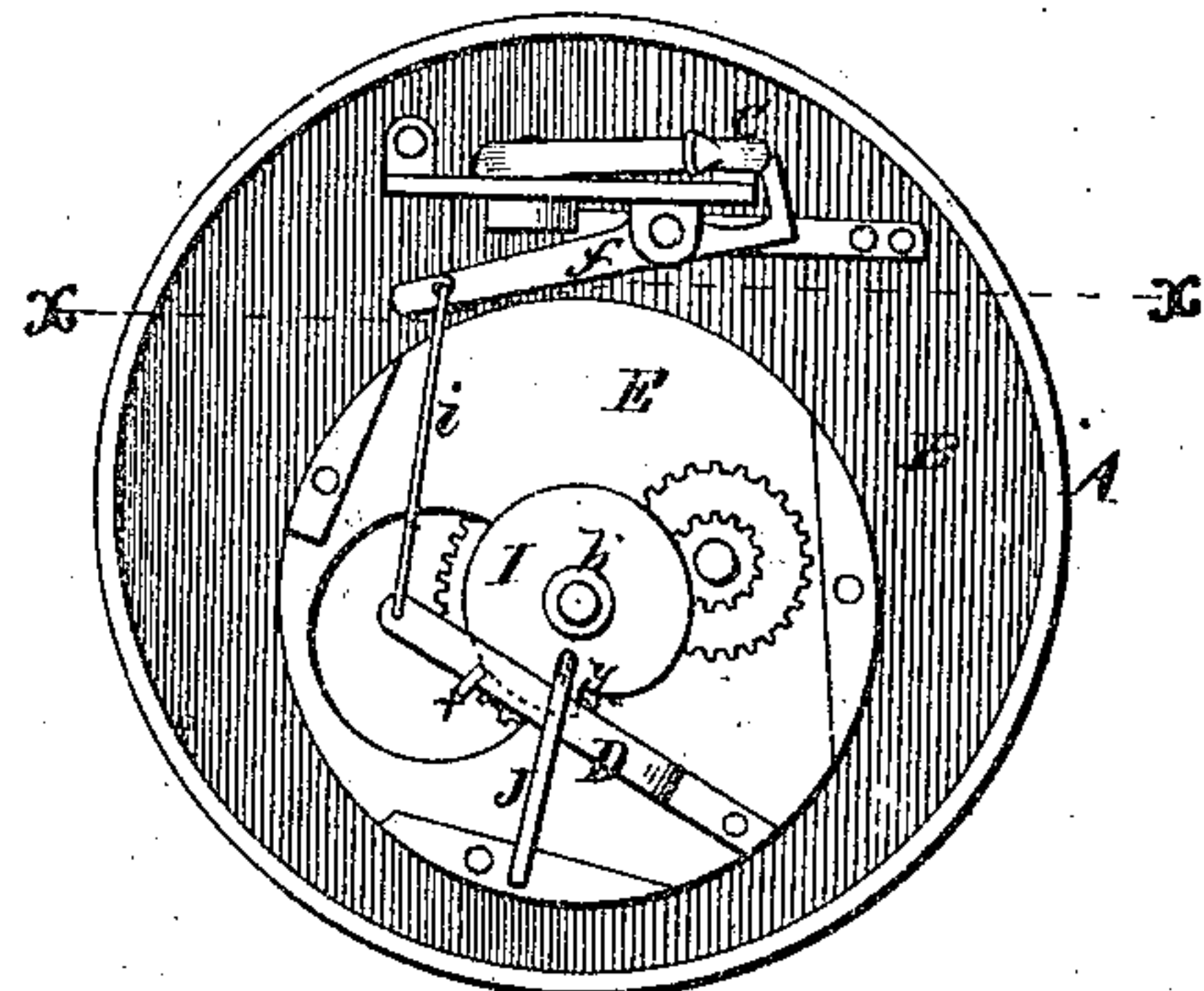
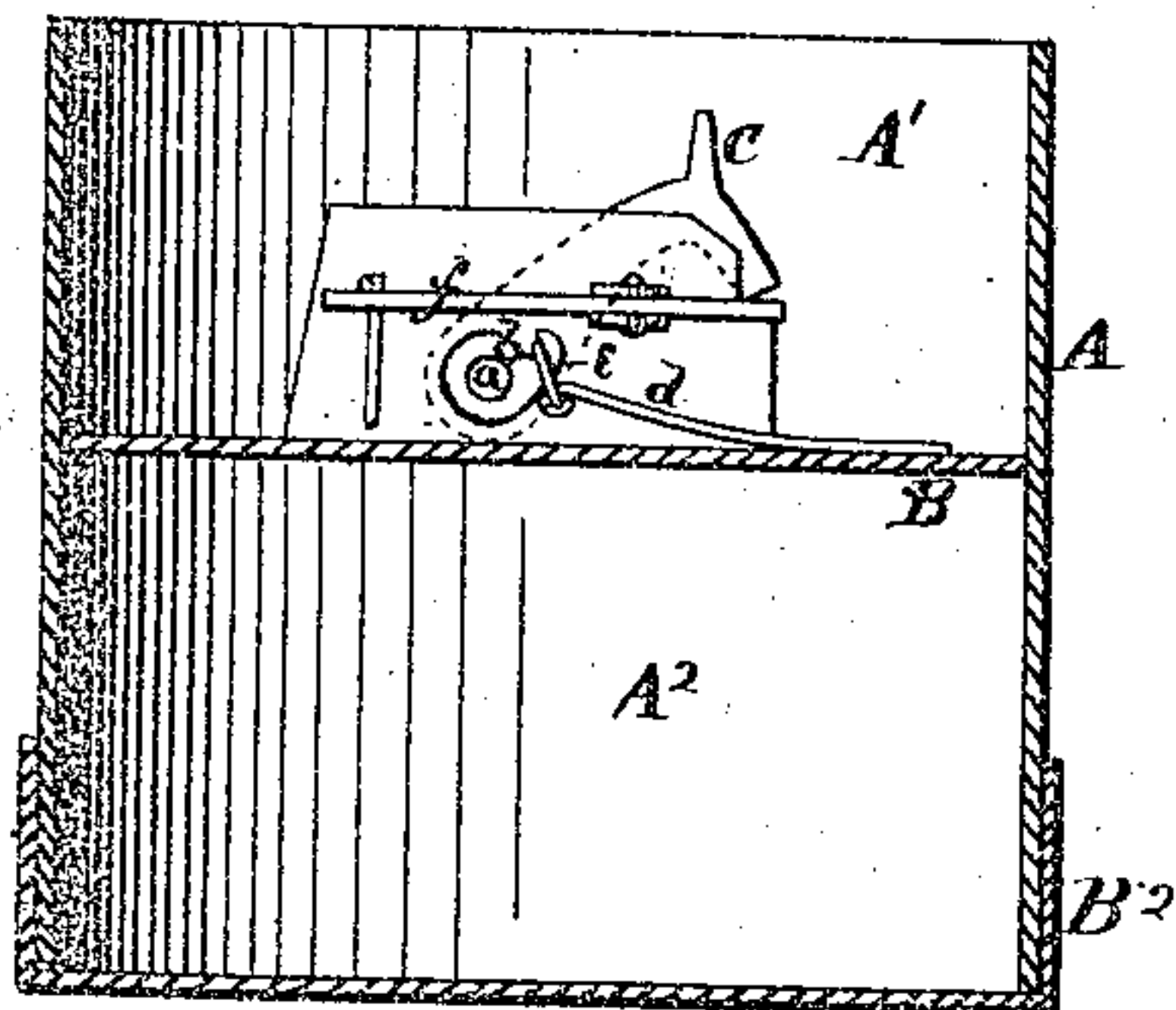


Fig. 4.



WITNESSES

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JESSE JOPLING, OF LONGWOOD, MISSOURI.

IMPROVEMENT IN CLOCK-WORK TORPEDOES.

Specification forming part of Letters Patent No. 172,017, dated February 1, 1876; application filed December 9, 1875.

To all whom it may concern:

Be it known that I, JESSE JOPLING, of Longwood, in the county of Pettis and in the State of Missouri, have invented certain new and useful Improvements in Clock-Work Torpedoes; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to torpedoes or other explosive charges in which a clock-work is operated by a hammer at a certain time to explode the torpedo or charge; and it consists in the construction and combination of parts, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of a torpedo embodying my invention. Fig. 2 is a plan view of the same with the top-head removed, and showing the clock-dial. Fig. 3 is a similar view with the dial removed. Fig. 4 is a longitudinal section of the torpedo.

A represents a cylindrical can or shell, of any suitable dimensions, provided with an interior partition, B, which divides the shell into two chambers, A¹ and A², which are closed, respectively, by the caps B¹ B². The chamber A² is intended to contain the charge of the torpedo, while the chamber A¹ contains the operating mechanism, and communication established between the two chambers by a vent, or its equivalent, of suitable construction to receive a percussion-cap, to be exploded by a hammer C, in the chamber A¹, and thus ignite the charge in the chamber A². On the hammer-pivot *a* is secured a hook, *b*, which is, by a link, *c*, connected with a spring, *d*, to throw the hammer down when the hook that holds the hammer elevated is suddenly withdrawn. This hook *f* is pivoted to a post in the chamber A¹, and its other end is, by a wire, *i*, connected with one end of a lever, D, pivoted to the top of the clock-work E, under the dial G thereof.

Of the clock-work E, *h* is the sleeve, to which the hour-hand H is attached. This sleeve H is provided at its inner end with a circular disk, I, from which an arm, J, ex-

tends over the top of the dial G. In the edge of the disk I is a notch, *y*, as shown in Fig. 3. On the under side of the lever D is a lug or projection, *x*, which bears against the edge of the disk I, whereby the lever D is held in such a position that the hook *f* will remain under and support the hammer C when the same is raised.

When the disk I revolves, so as to bring the lug *x* opposite the notch, a spring, *m*, connected with the hook *f*, throws said hook from under the hammer, the lug *x* entering the notch to allow the hook to pass from under the hammer, which then is thrown down to explode the percussion-cap.

Through the head B¹ of the torpedo is passed a rod, *p*, having its outer end bent in crank form, so as to be held under either one of two catches, *n* *n'*, on the outside of the head. On this rod, within the chamber A¹, is a projection, *s*, to act as a stop for the clock-work E when the rod is turned to one side, and held under the catch *n*. Then, by turning the rod till it is under the catch *n'*, the stop *s* will be turned outward from the clock-work, and this will then be started.

By these means the clock-work may be set to any time desired, so as to explode the torpedo at any given time.

The torpedo is attached by the usual suction-cups attached to rings L, which are connected to a wire belt, P, around the torpedo.

My invention may be applied to any concealed mines or magazines intended or designed to destroy men or armies; also to firearms of almost every description, whether single or provided with cylinders containing charges, with caps properly arranged for explosion.

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

The combination, with a torpedo-case, A, having interior partition B, of a clock-work, E, with exterior stopping and starting device *p* *s*, disk I, with notch *y*, lever D, with lug *x*, connecting-rod *i*, spring-hook *f*, and spring-hammer C, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 8th day of November, 1875.

Witnesses:

WILLIAM H. PENCE,
GEORGE W. SMITH.

JESSE JOPLING.