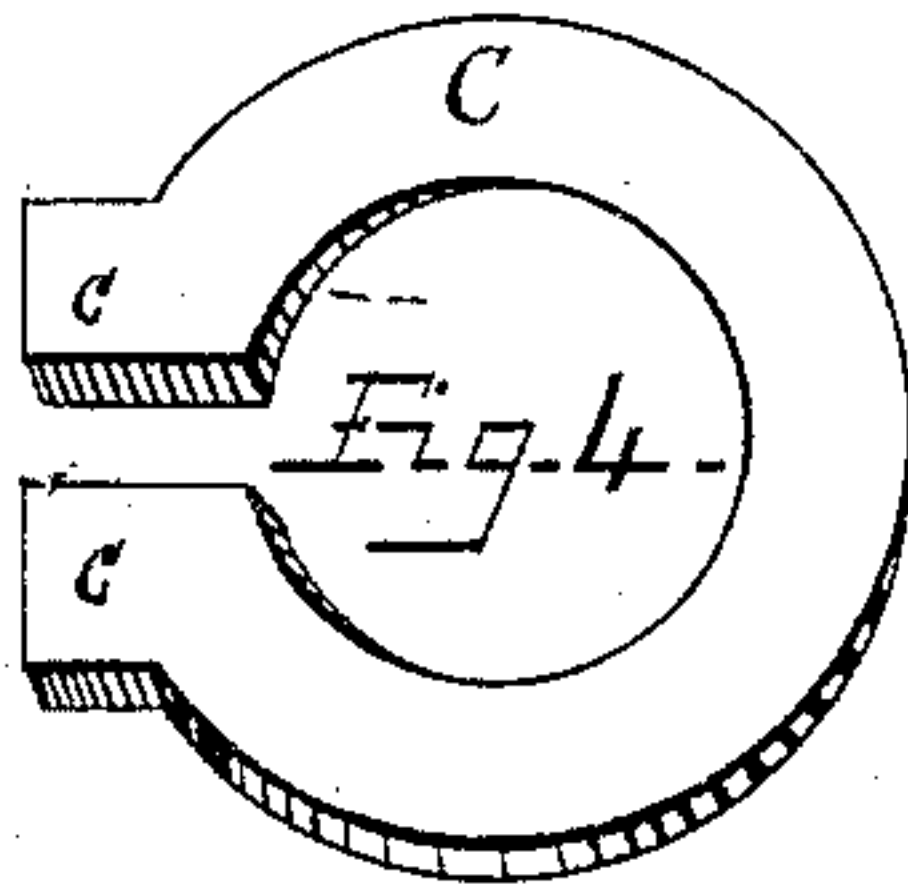
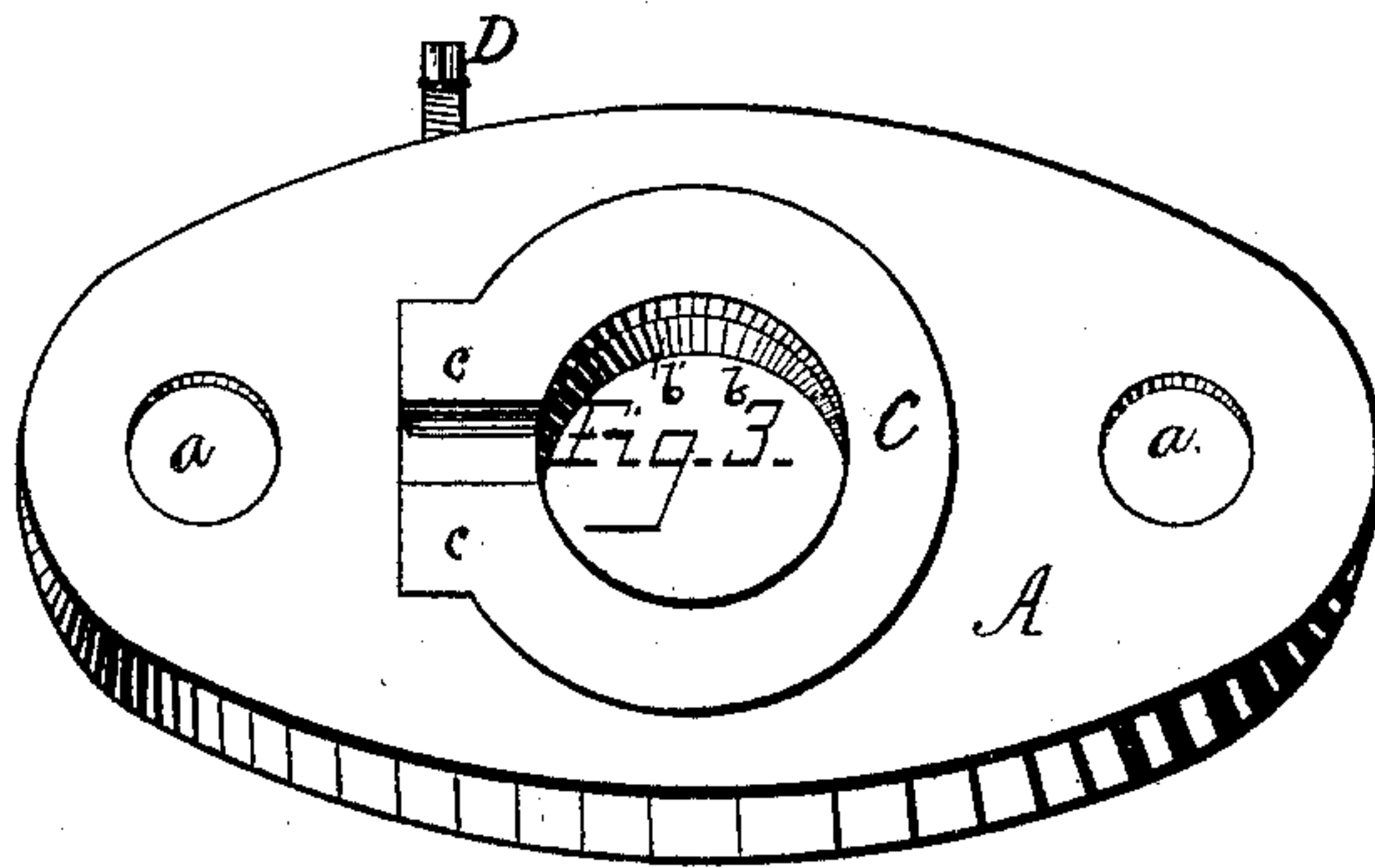
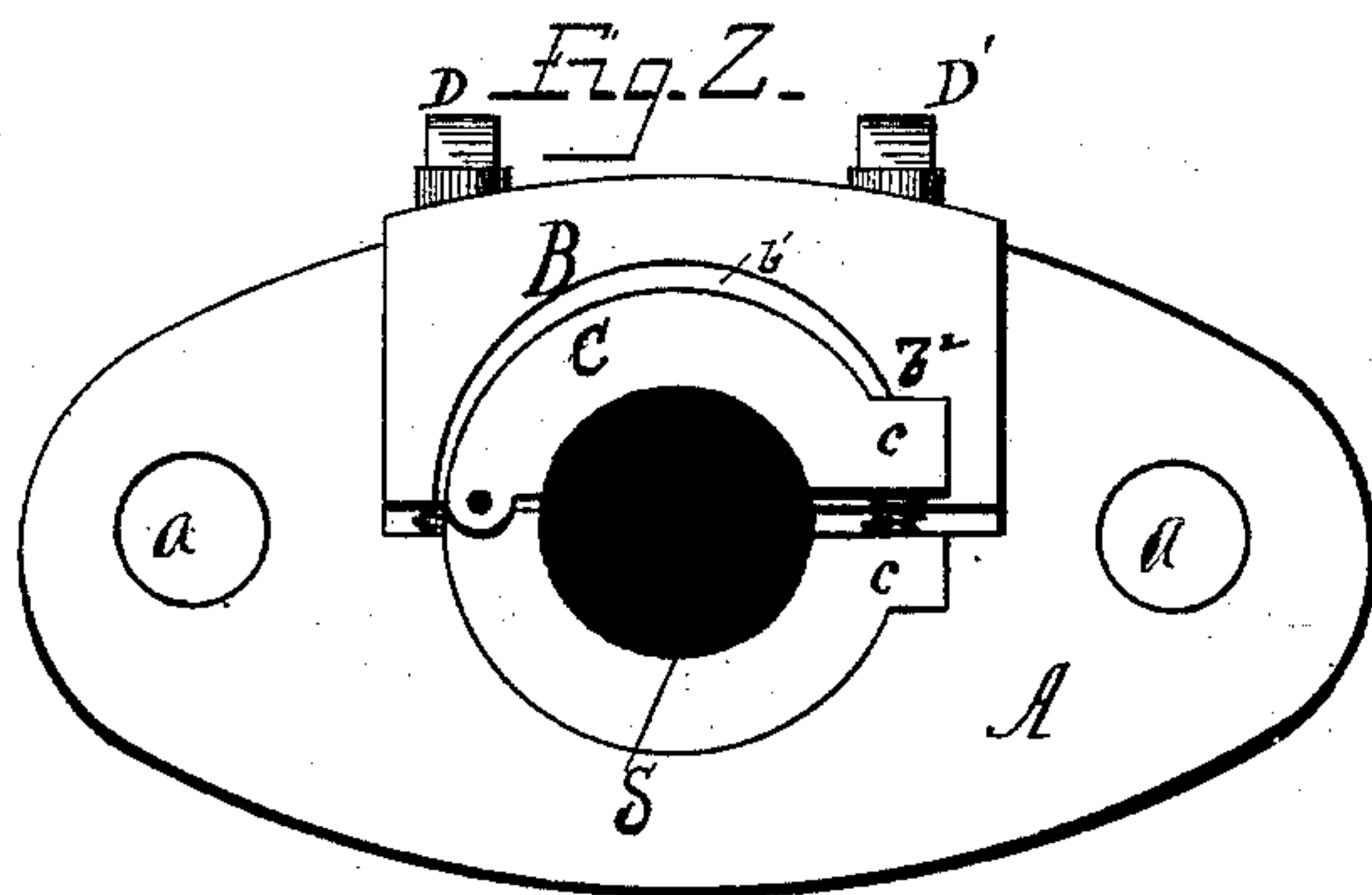
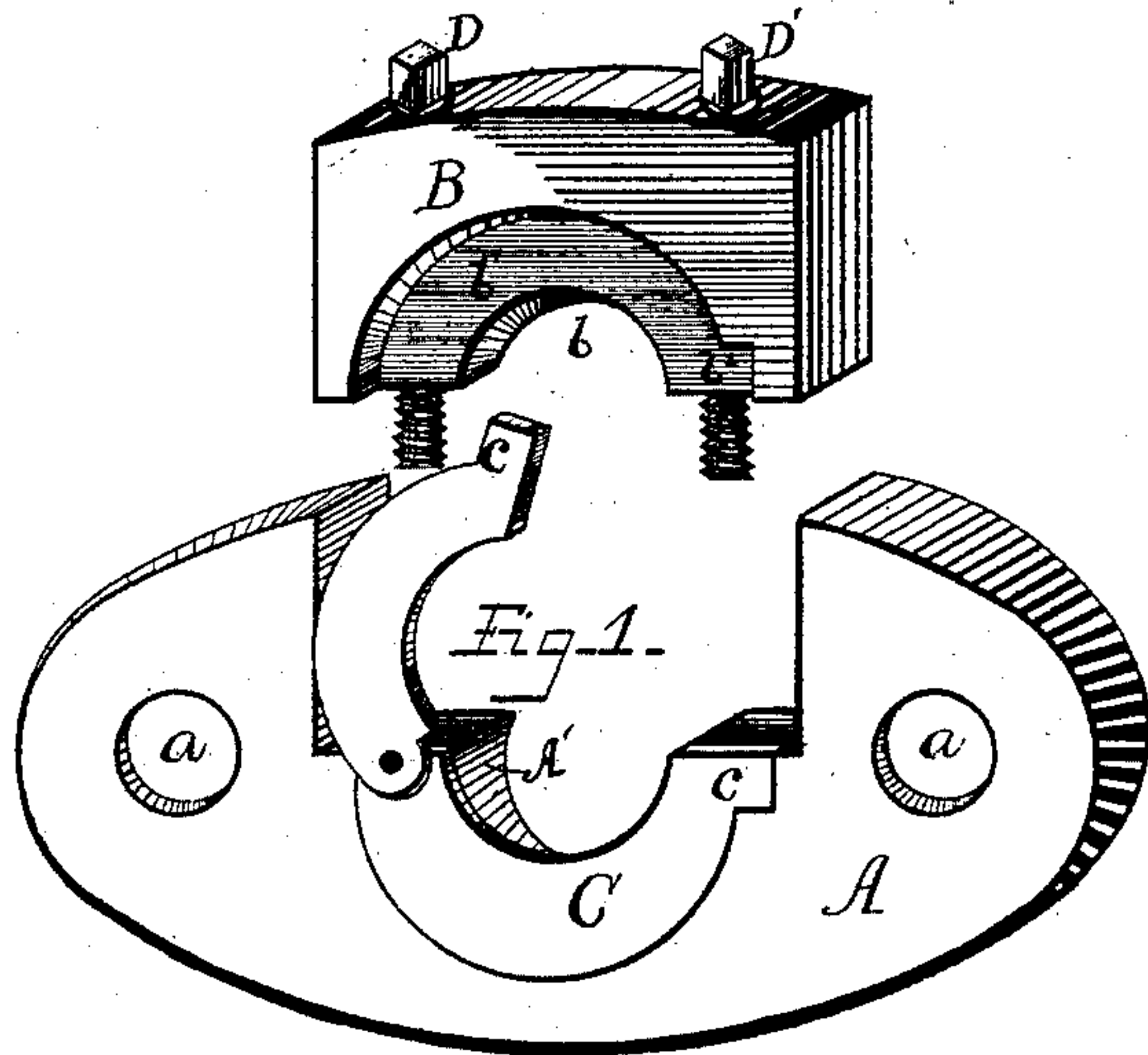


(No Model.)

E. G. MEDRICK.

CLAMP FOR THE VALVE RODS OF LOCOMOTIVE ENGINES.
No. 358,871. Patented Mar. 8, 1887.



WITNESSES
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CLAMP FOR THE VALVE-RODS OF LOCOMOTIVE-ENGINES.

SPECIFICATION forming part of Letters Patent No. 358,871, dated March 8, 1887.

Application filed December 14, 1886. Serial No. 221,536. (No model.)

To all whom it may concern:

Be it known that I, ERASTUS GUNN MEDRICK, a citizen of the United States, residing at Middletown, in the county of Orange and State of New York, have invented certain new and useful Improvements in Clamps for the Valve-Rod of a Locomotive-Engine; 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.

My invention relates to attachments for engines; and my said invention consists of a clamp applied to the steam-chest gland of a locomotive-engine, whereby the valve-rod thereof may be held stationary when desired, for the purposes as will presently appear.

The object of my invention is to supply locomotive or other engines employing two pistons with their accompanying steam-chest, valves, and rods with means, preferably applied to the gland of the steam-chest and secured in position by the usual stuffing-box studs, whereby the valve or piston-rod of said engine may be blocked or held stationary in place in case of an accident necessitating the use of but one cylinder, &c.

For a better understanding of the details of construction and arrangement of my invention, reference must now be had to the accompanying drawings, in which—

Figure 1 represents a perspective view of my clamp as detached from the gland of the stuffing-box of the steam-chest of an engine, the parts of the clamp being shown as in position when first being applied upon the gland and without disconnecting the valve-stem; and Fig. 2 is a front elevation of the same, illustrating the clamp in position upon a valve-rod. Figs. 3 and 4 represent modifications in the form of the clamping-ring and means for operating the same.

The letter A represents a plate similar to the steam-chest stuffing-box gland of a locomotive-engine, through the opening A' of which the valve-stem S passes, which plate or supplemental gland is secured in position, in the usual manner, by the stuffing-box studs entering the holes a therein. Around the opening A' of this supplemental gland is applied my clamp for blocking or holding the valve-

stem when it is desired that the movement of said stem shall cease, which clamp may be composed of the following parts, viz:

A clamp, C, which may be either in the form of a hinged ring, as in Figs. 1 and 2, or a spring-ring, as in Figs. 3 and 4, is securely seated within a recess formed in the face of the supplemental gland A around the valve-stem opening A'. Above this ring C is arranged a block, B, having a vertical movement in a recess cut out of the top edge of the gland; or this block may be simply a portion of the gland A. Through this block B, in a vertical direction, pass bolts D D', which enter screw-holes in the edge of the gland, as seen in Figs. 1 and 2, whereby said block is moved up or down. The under surface of this block is curved to form a continuation of the opening A' of the gland, as at b, and a recess, as at b', is also formed in said block to receive the upper half of the clamping-ring C, as shown in Fig. 2. Referring again to the ring C, it will be seen that a lateral prolongation, as at c, is formed thereto, with a corresponding formation in the block B, as at b², which forms the bearing-point of said block against the clamping-ring, as seen in Fig. 2. This completes the preferred form of construction of the clamp for holding the valve-stem of a disabled engine stationary, while the engine on the opposite side may still continue its movement. Instead, however, of forming the block B separate from the supplemental gland, it may be a portion thereof; or said block may be entirely dispensed with, and the screw-bolt D made to pass through the edge of the gland and impinge against the outer end of the clamping-ring, as in Fig. 3, and this ring C is to be made of tempered steel, either hinged or spring.

If found to accomplish the desired result, the block alone without the ring may be employed; but the combined block and ring is the preferred form. Should the block be used alone—that is, without the ring—the valve-stem opening in said block should be slightly elliptic instead of a circle.

When intended for use, my clamp is applied to the face of the stuffing-box gland with the ring against said gland, and secured by the stuffing-box studs.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent of the United States, is as follows, viz:

- 5 1. In combination with the steam-chest stuffing-box gland of an engine, a clamp applied to said gland, adapted to engage the valve-stem passing through said gland and prevent the movement thereof.
- 10 2. A clamp for the valve-stem of an engine applied to the steam-chest gland and composed of a ring which encircles the valve-stem block resting at one end upon one edge of the ring, and means for operating said block.
- 15 3. In combination with the plate A and ring C, the block B and screw-bolts D D'.
4. In combination with the plate A, the ring C, having projecting bearing portions *c*, and block B, having a bearing portion, *b*², to

impinge upon said bearing portions of the ring, 20 for the purposes described.

5. A clamp for the valve-rod of an engine, consisting of a movable jaw upon the face of the steam-chest gland adjacent the valve-rod opening thereof, and means for operating said jaw. 25

6. The supplemental steam-chest gland of an engine, formed with a recess around the valve-rod opening thereof, and a removable part, B, combined with a ring applied within said recess, and means for operating the part B, for 30 the purposes specified.

7. In combination with the supplemental gland A, a movable jaw, B, applied thereto, for the purposes specified.

ERASTUS GUNN MEDRICK.

In presence of—

D. F. SEWARD,
DANIEL FINN.