

G. A. STURGES.
Railroad Rail-Joints.

No. 139,276.

Patented May 27, 1873.

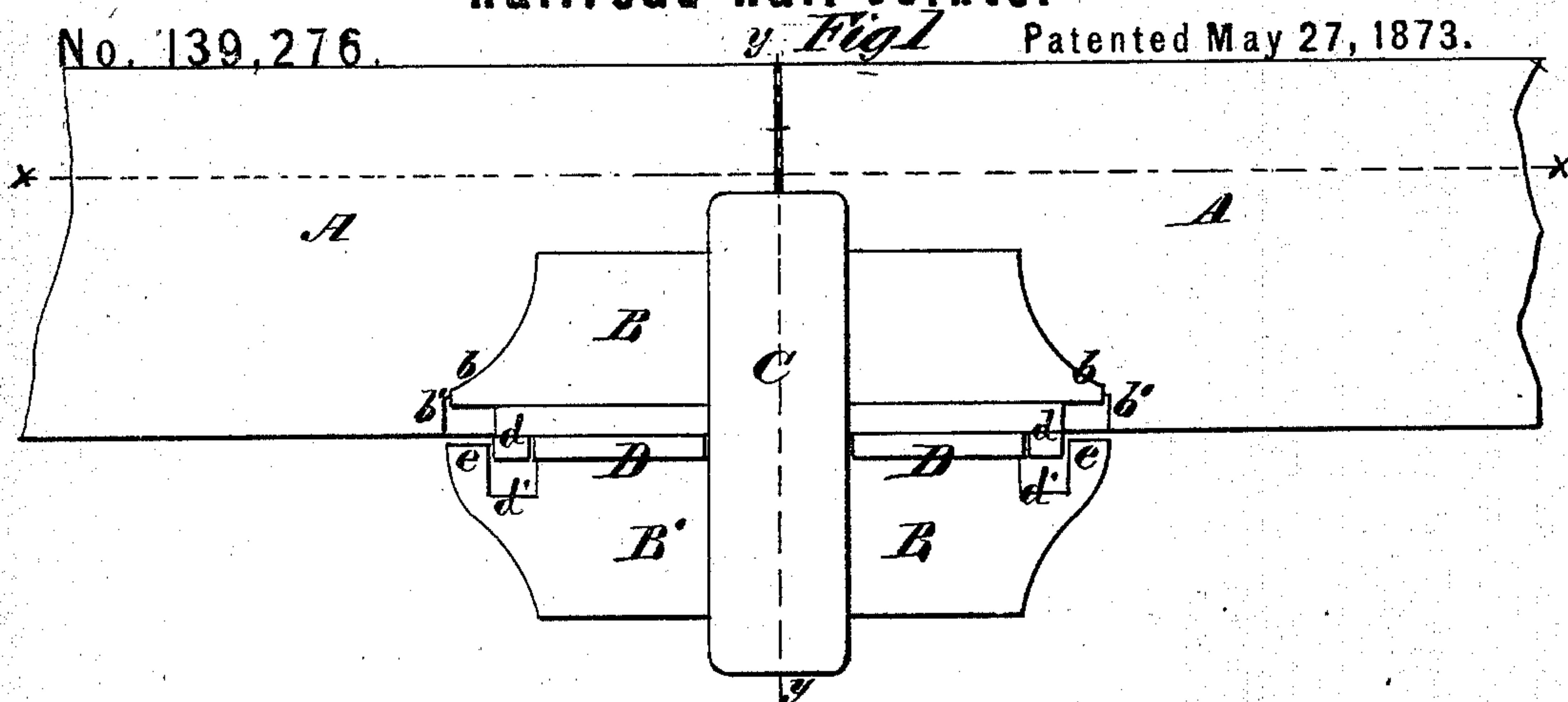
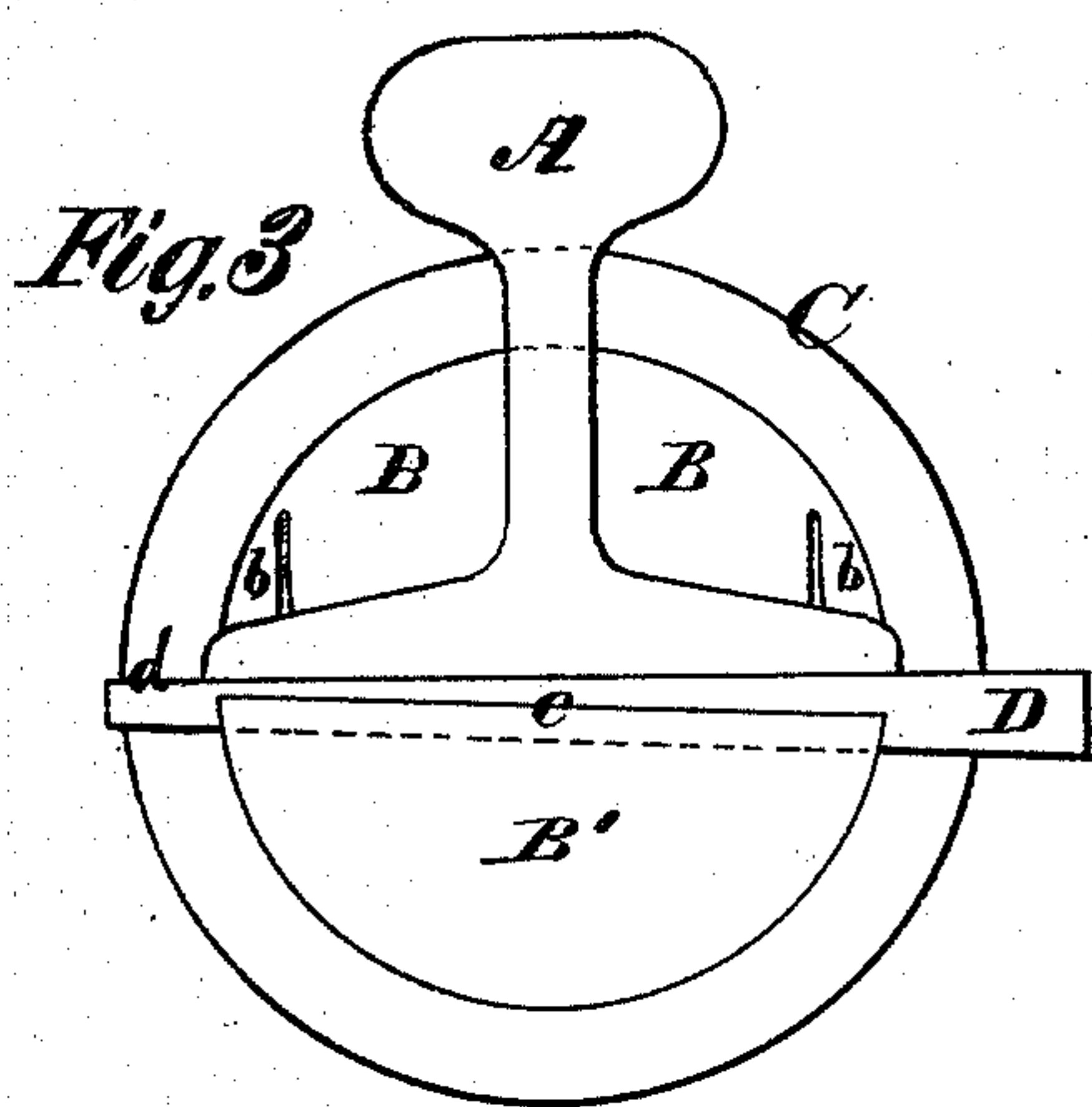
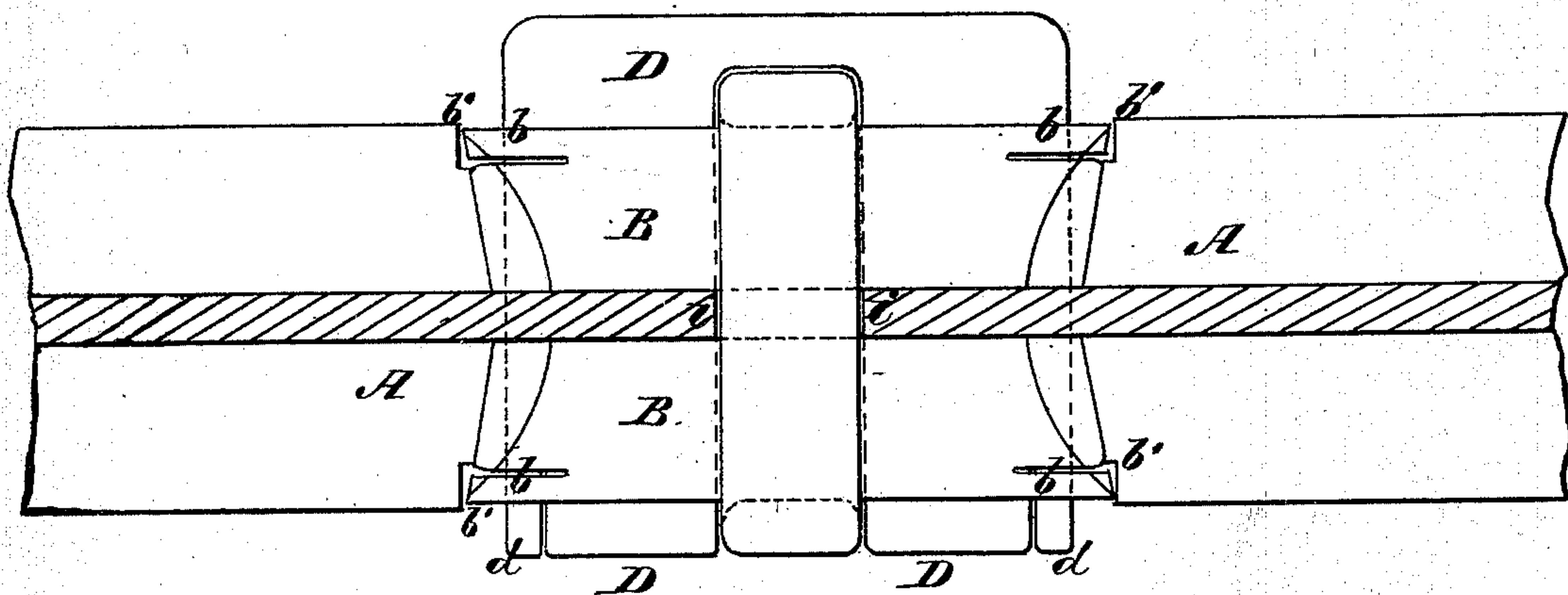
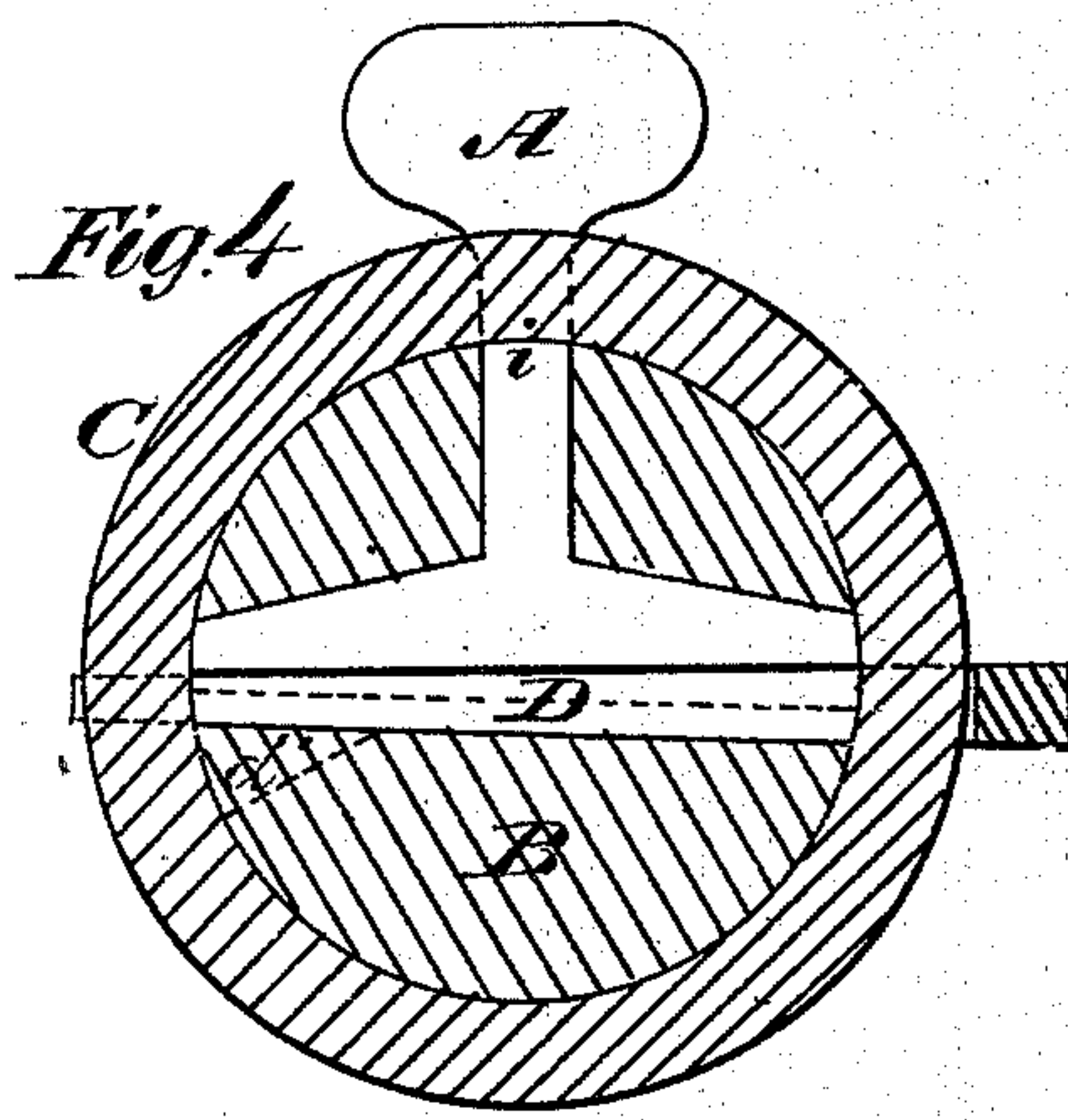


Fig. 2



Witnesses,
R. T. Campbell
Jas. Campbell



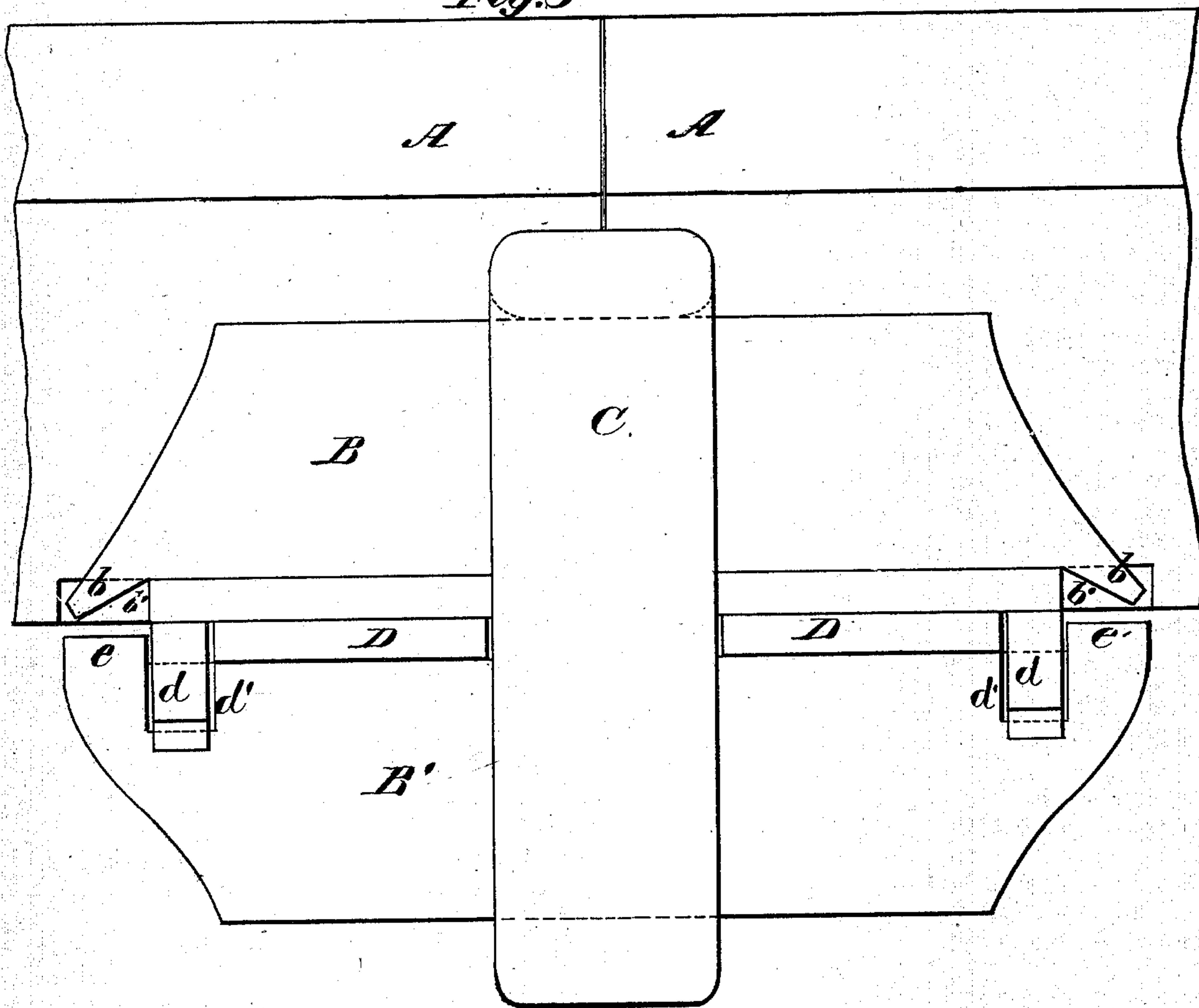
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Fig. 5



Witnesses.
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Inventor
George A. Sturges
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UNITED STATES PATENT OFFICE.

GEORGE A. STURGES, OF DELHI, NEW YORK, ASSIGNOR TO HIMSELF AND
DEXTER PETTENGILL, OF SAME PLACE.

IMPROVEMENT IN RAILROAD RAIL-JOINTS.

Specification forming part of Letters Patent No. **139,276**, dated May 27, 1873; application filed
May 2, 1873.

To all whom it may concern:

Be it known that I, G. A. STURGES, of Delhi, in the county of Delaware and State of New York, have invented a new and Improved Railroad Rail-Joint; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1, Plate 1, is a side view of the ends of two rail sections confined together by my improved coupling. Fig. 2, Plate 1, is a horizontal section in the plane indicated by dotted line *x x*, Fig. 1. Fig. 3, Plate 1, is an end view. Fig. 4, Plate 1, is a cross-section in the vertical plane *y y*, Fig. 1. Fig. 5, Plate 2, is an enlarged side view, showing the top, splicing pieces, and the wedge clinched.

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

The object of this invention is to improve railroad-joint fastenings by the combination of a wedge and ring with splicing pieces, which present convex external surfaces to the ring, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawings, A A represent the ends of two rail sections of the well-known T-shape, which are notched at *i* and *b'*. B B B' represent three splicing pieces having convex outer surfaces, which correspond to the inner surface of a binding-ring, C. D represents a forked wedge, which has lips *d d* formed on its reduced outer corners. The splice B' is constructed with lips *e e* at the ends of its upper flat surface, which lips, when the wedge D is driven into its place, prevent endwise play of the piece B'. This piece B' is also notched at *d' d'* for the purpose of receiving the lips *d d* on the wedge D when the latter is driven to its place, and thus preventing it from becoming loose. The splices B', which are alike in size and shape, are constructed so as to fit snugly against the verti-

cal sides of the rails, web, and the upper surfaces of the rail-base, and these splices, as well as the external surface of the splice B', are shaped externally so as to fit snugly the inner surface of the ring C when the wedge D is driven home between the bottom surface of the rail and the upper beveled surface of the splice B', as shown in Figs. 1, 3, and 4.

To apply the fastening the ends of the rail sections A A are brought together, with the upper portion of the ring C, in the notches *i*, which are made into both rail sections. The three pieces, B B and B', are then inserted into their places between the ring C and rail-base and rail-web, after which the forked wedge D is driven between the base-splice B' and the base of the rail sections, which, owing to the surrounding ring, draws the three splices firmly and with equal pressure about the rail.

The lips *b b* of the splices B B, and the lips *d d* of the wedge D, are then forced down into their respective recesses, which locks the whole in place.

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

1. The combination, with convex splices B B B', of a ring or circular tie, C, and a bifurcated wedge, D, substantially as described.

2. The lips *e e* formed on the upper beveled side of the splice B', in combination with the splices B B, ring C, and wedge D, substantially as described.

3. The splices B B constructed with lips *b b*, and combined with the rail sections notched at *b' b'*, and with ring C and base-splice B', substantially as described.

4. The base section B', recessed or notched at *d d'*, in combination with wedge D lipped at *d d*, and with the ring C, substantially as described.

GEORGE ANSON STURGES.

Witnesses:

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B. F. GEROWE.