

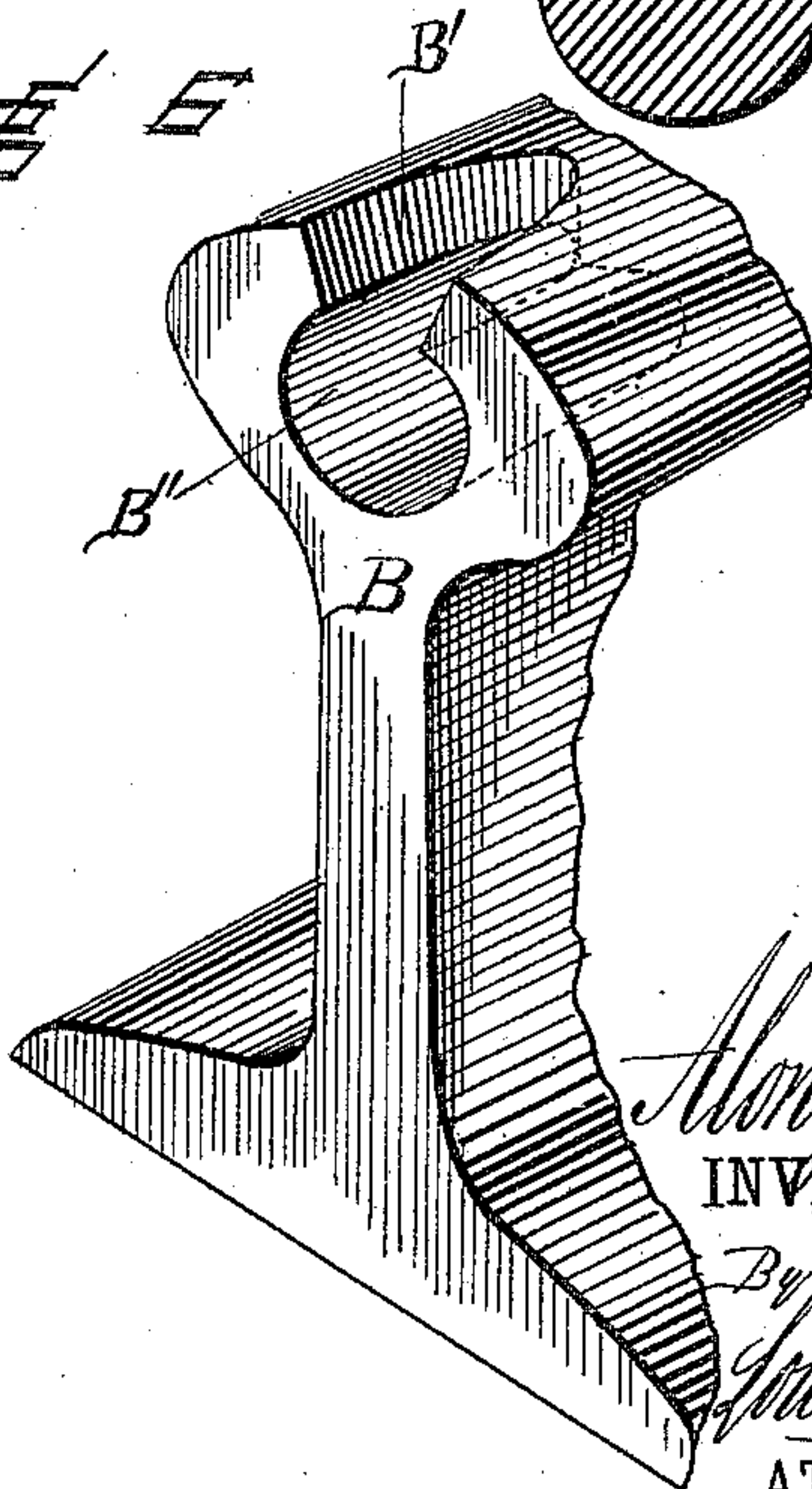
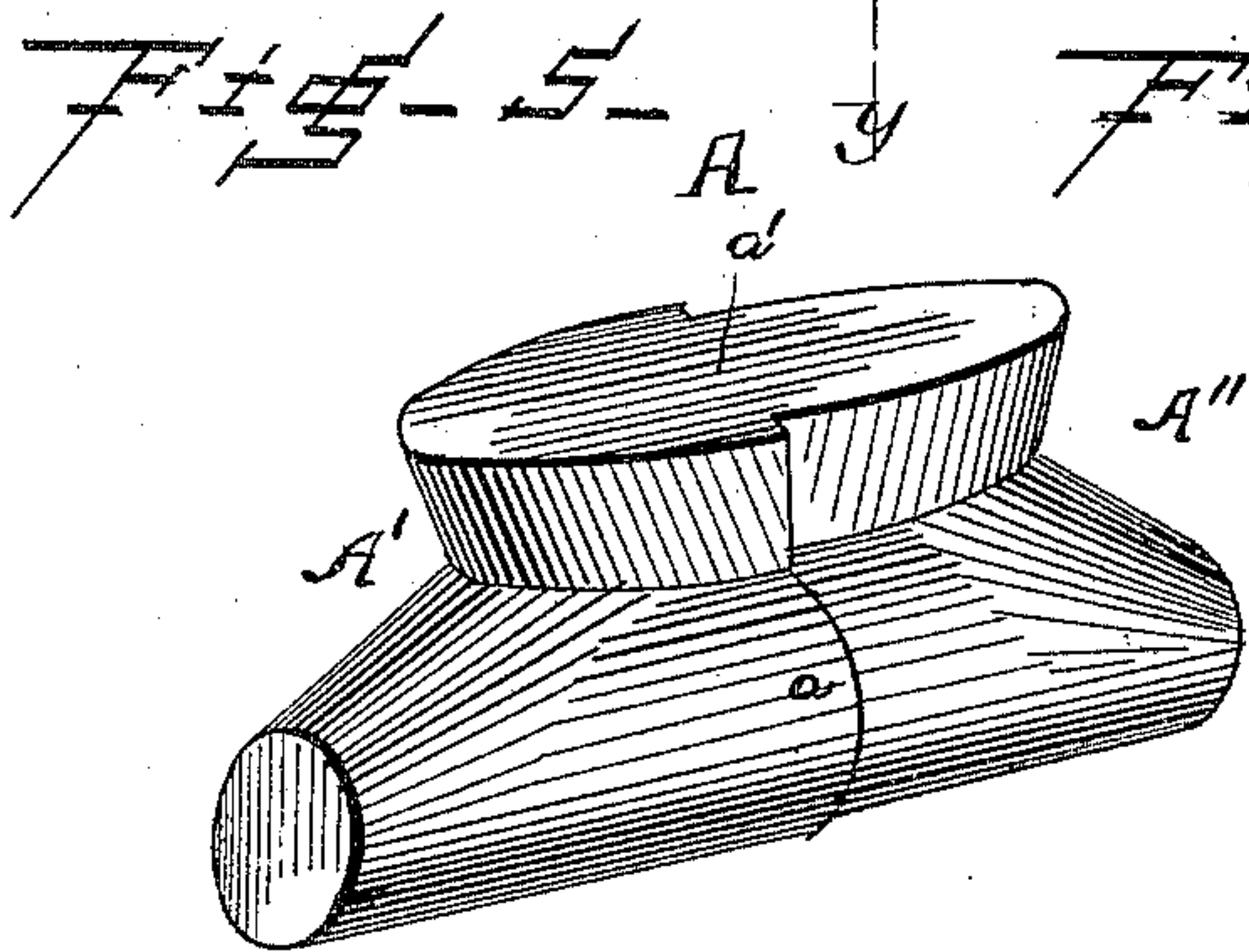
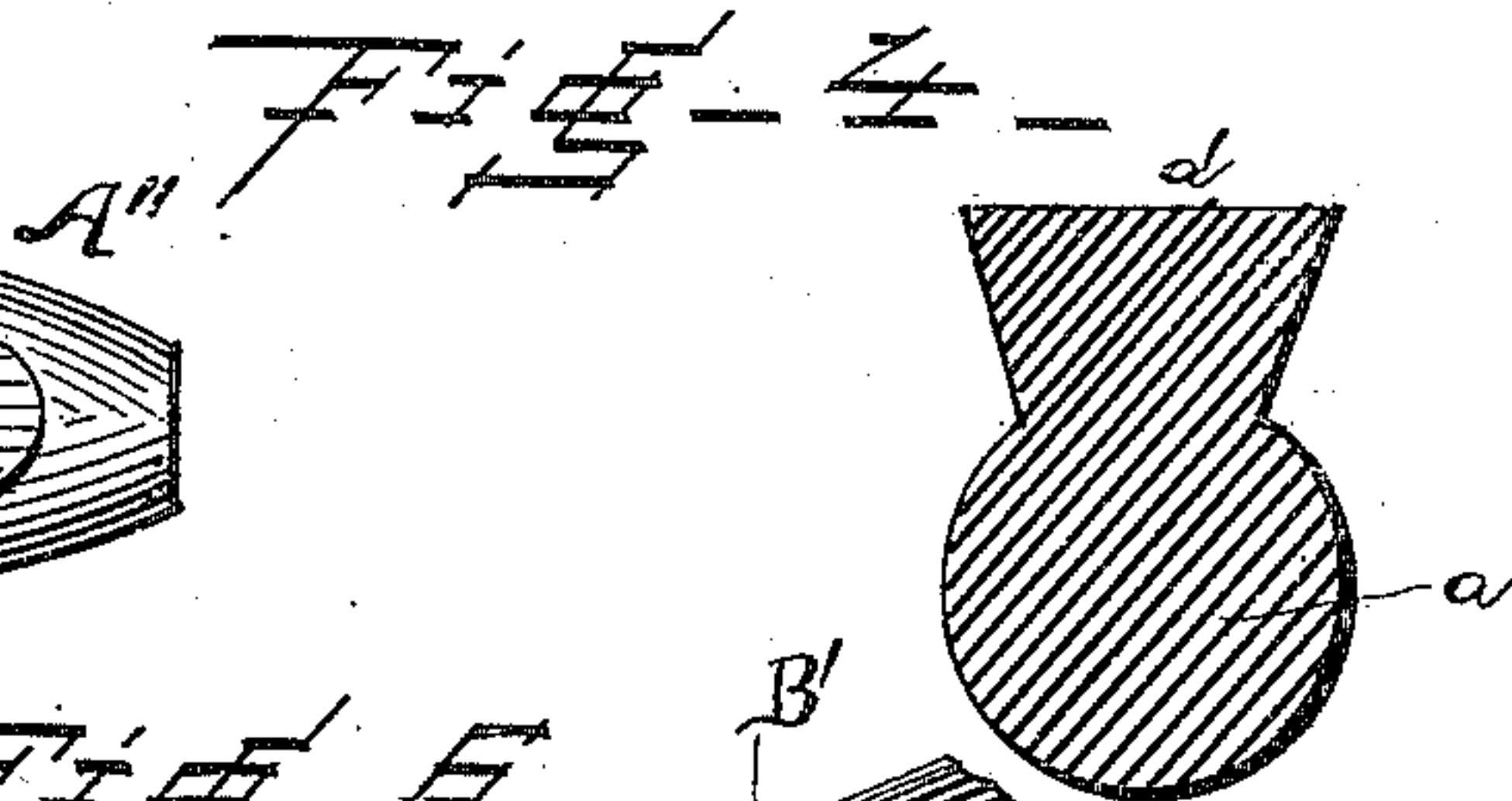
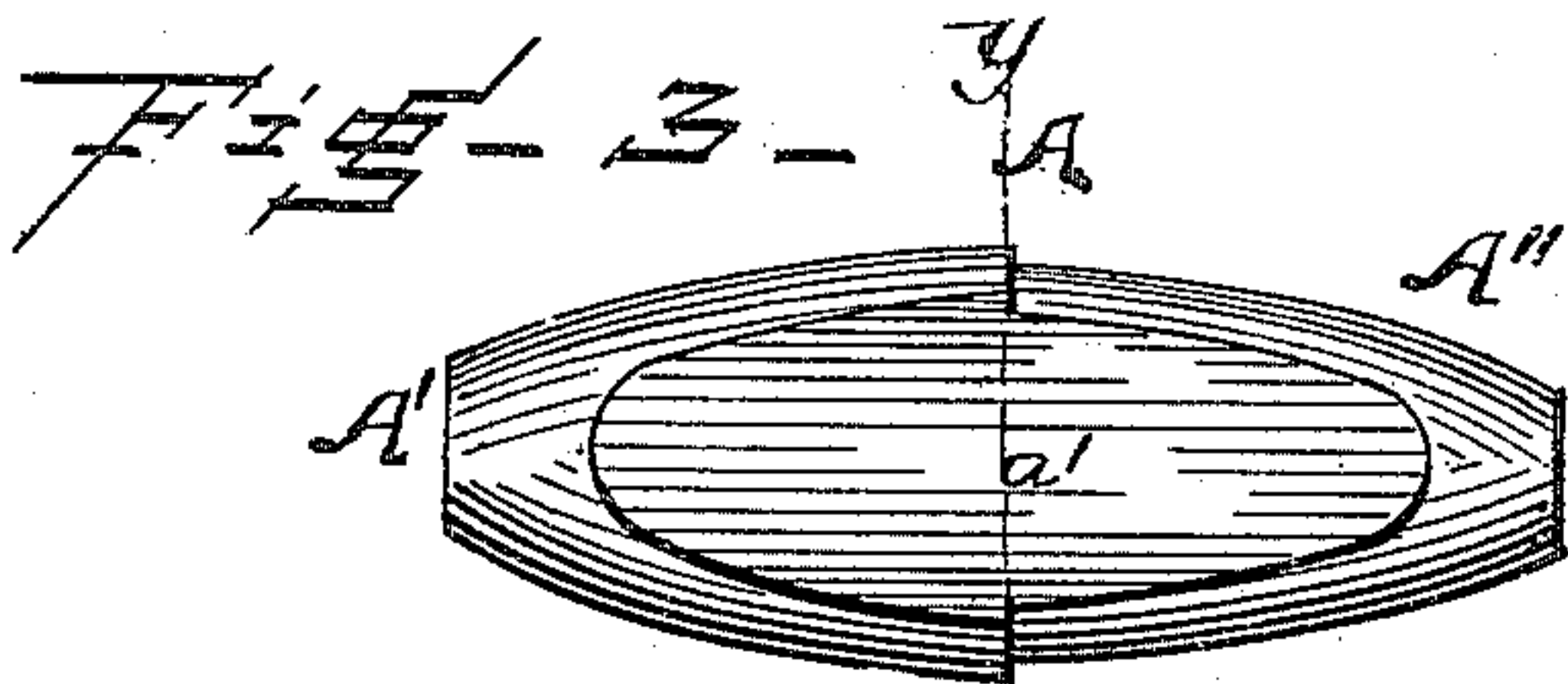
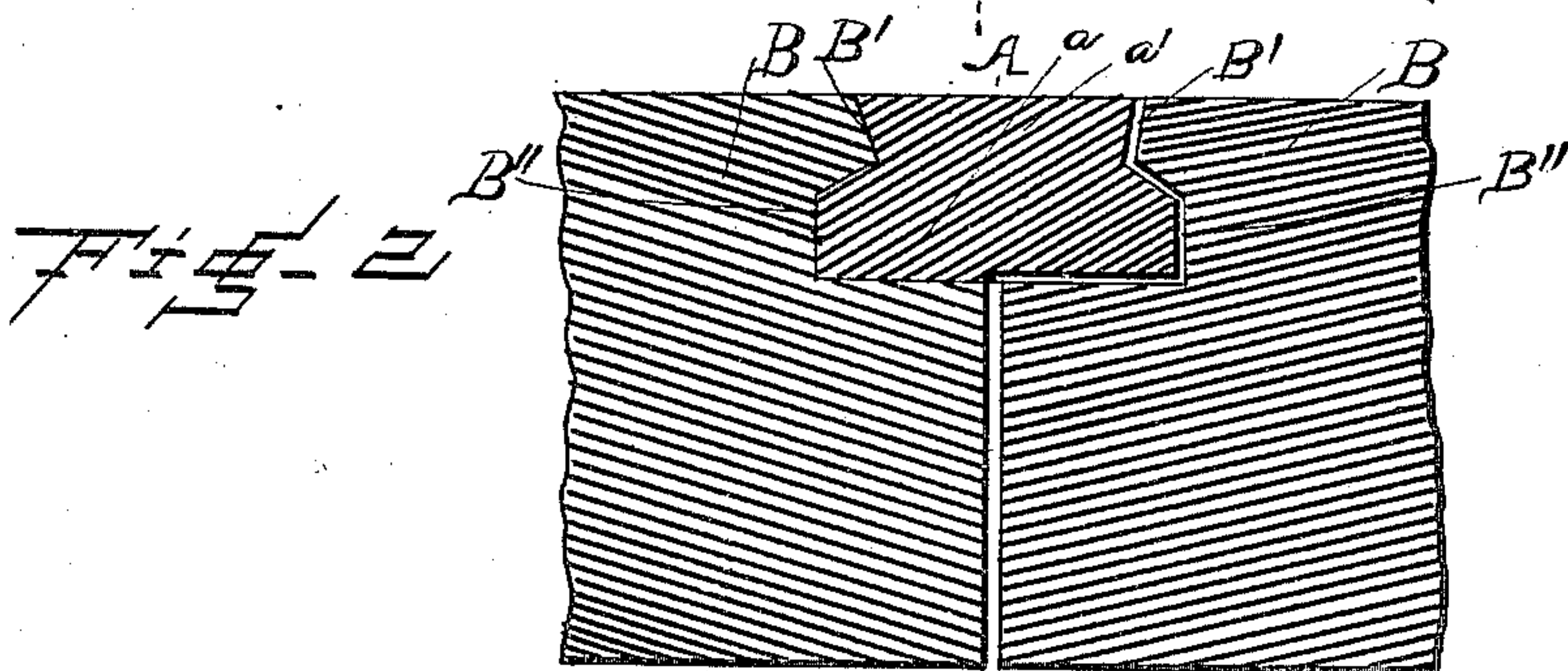
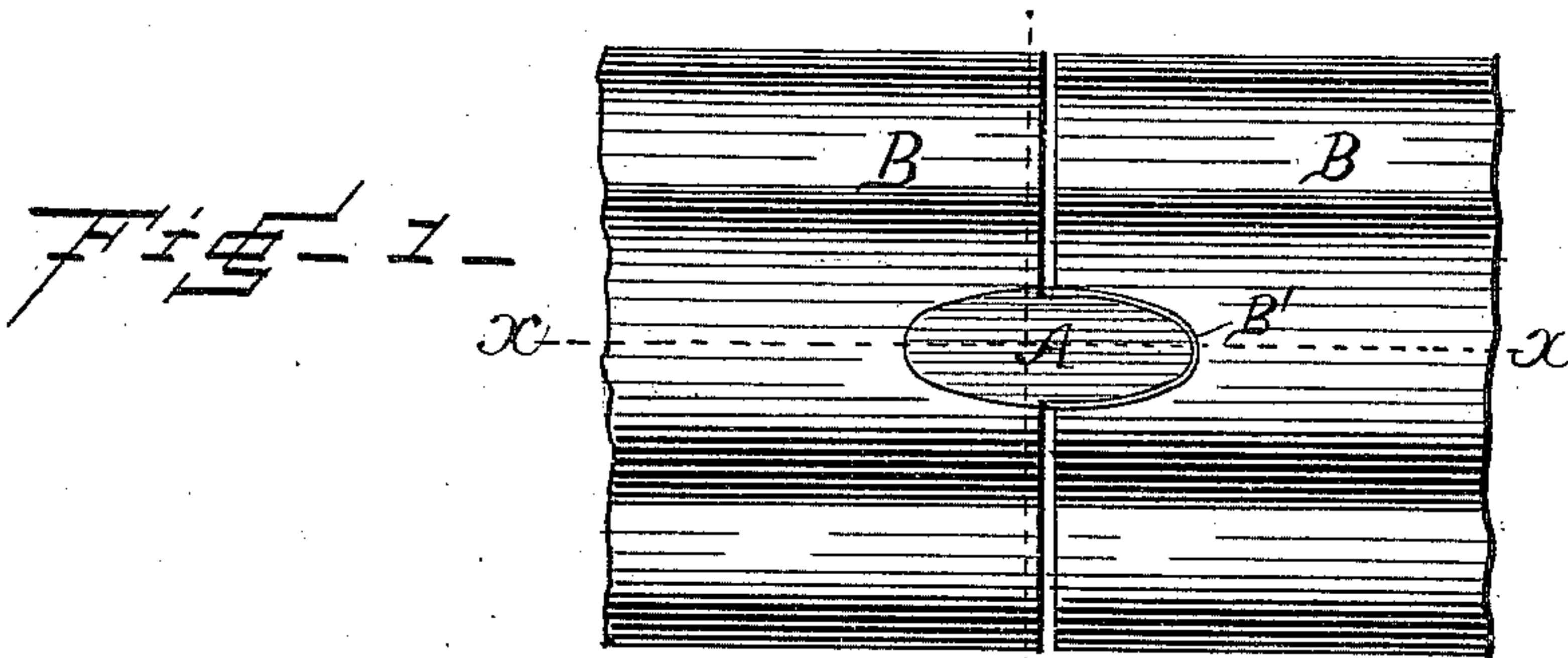
(No Model.)

A. HASCY.

RAIL JOINT.

No. 307,645.

Patented Nov. 4, 1884.



WITNESSES:

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RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 307,645, dated November 4, 1884.

Application filed April 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALONZO HASCY, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Rail-Joints; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a plan view illustrating my improved rail-joint. Fig. 2 is a longitudinal vertical sectional view taken on line *x x*, Fig. 1. Fig. 3 is a top view of the dowel bolt or key. Fig. 4 is a cross-sectional view taken on line *y y*, Fig. 3. Fig. 5 is a perspective view of the dowel-bolt, and Fig. 6 is a perspective view of one end of one of the rails.

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

My invention has relation to rail-joints for railway or other rails; and it consists in the improved construction and combination of parts of the same, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings, A represents the dowel-bolt, of which I will now proceed to describe the exact construction of the larger end or half, as the other end or half is precisely similar in construction, except that it is reduced in all its dimensions to such an extent that while the larger half, A', of the dowel-bolt will be wedged firmly within the recessed end of a rail, the reduced half, A'', will fit with sufficient looseness within the recessed end of a connecting-rail as to allow of the expansion and contraction of the rails so connected. The central portion of the body *a* is nearly cylindrical in cross-section, as shown in Fig. 4 of the drawings, its extended end being beveled or cut away upon its top and sides to give it the form most clearly illustrated in Figs. 2 and 3 of the drawings. The web *a'* is made wedge-shaped in cross-section, as shown in Fig. 4 of the drawings, and is also beveled or cut away on each side from about its center toward its end, so as to make

the end of the web about one-half the width of the widest portion of the same. This latter construction will be readily understood by reference to Figs. 1 and 3 of the drawings. The other half of the dowel-bolt is, as already stated, precisely similar in its construction to that just described, except that it is reduced in all its dimensions, as clearly illustrated in the drawings.

B B indicate the adjacent ends of two rails, each of which is provided with the recesses B' B'', which are adapted to conform to the curvature of the dowel-bolt, the recesses in the end of a rail being of such a size as to adapt them to tightly fit the larger end or half of the dowel-bolt, which may be driven home within its recess in any suitable manner.

From the foregoing description, taken in connection with the accompanying drawings, the construction of my improved rail-joint will readily be understood without requiring further explanation.

It will be seen that by constructing the dowel-bolt and the recessed end of each rail B of the form shown and described the larger half of the said bolt will be wedged firmly within the recessed adjacent end of one of the rails at three different points—first, by the extended pointed end of its body portion *a*; second, by the wedge-shaped sides of its upper portion or web, *a'*; and, third, by the triangular or pointed end of the web *a'*, as shown in Fig. 1 of the drawings—while by reducing the size of the other half, A'', of the bolt, so that it fits loosely within the adjacent recessed end of a rail, the expansion and contraction of the rails so connected will not be interfered with.

It will be seen that my dowel-bolt is exceedingly simple in construction, and requires no screws or bolts to hold it in its operative position.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination, with the suitably-recessed adjacent ends of two railway-rails, of a dowel-bolt having a cylindrical body, the extended ends of which are beveled or pointed, one end or half of the said bolt being reduced, as shown, to prevent the said end binding in

the recessed end of the rail with which it engages, substantially as shown, for the purpose set forth.

2. The combination, with the suitably-recessed adjacent ends of two railway-rails, of a dowel-bolt comprising a cylindrical body, the extremities of which are beveled or pointed, and an upper portion or web wedge-shaped in cross section, one end or half of the said bolt being reduced, as shown, to prevent the said end binding in the recessed end of the rail with which it engages, substantially as shown. for the purpose set forth.

3. The combination, with the suitably-recessed adjacent ends of two railway-rails, of a dowel-bolt comprising a cylindrical body, the

extremities of which are beveled or pointed, and an upper portion or web wedge-shaped in cross-section and tapering from the center toward each end, one end or half of the said bolt being reduced, as shown, to prevent the said end binding in the recessed end of the rail with which it engages, substantially as shown, for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

ALONZO HASCY.

Witnesses:

WALDO HUTCHINS, Jr.,
AUG. S. HUTCHINS.