

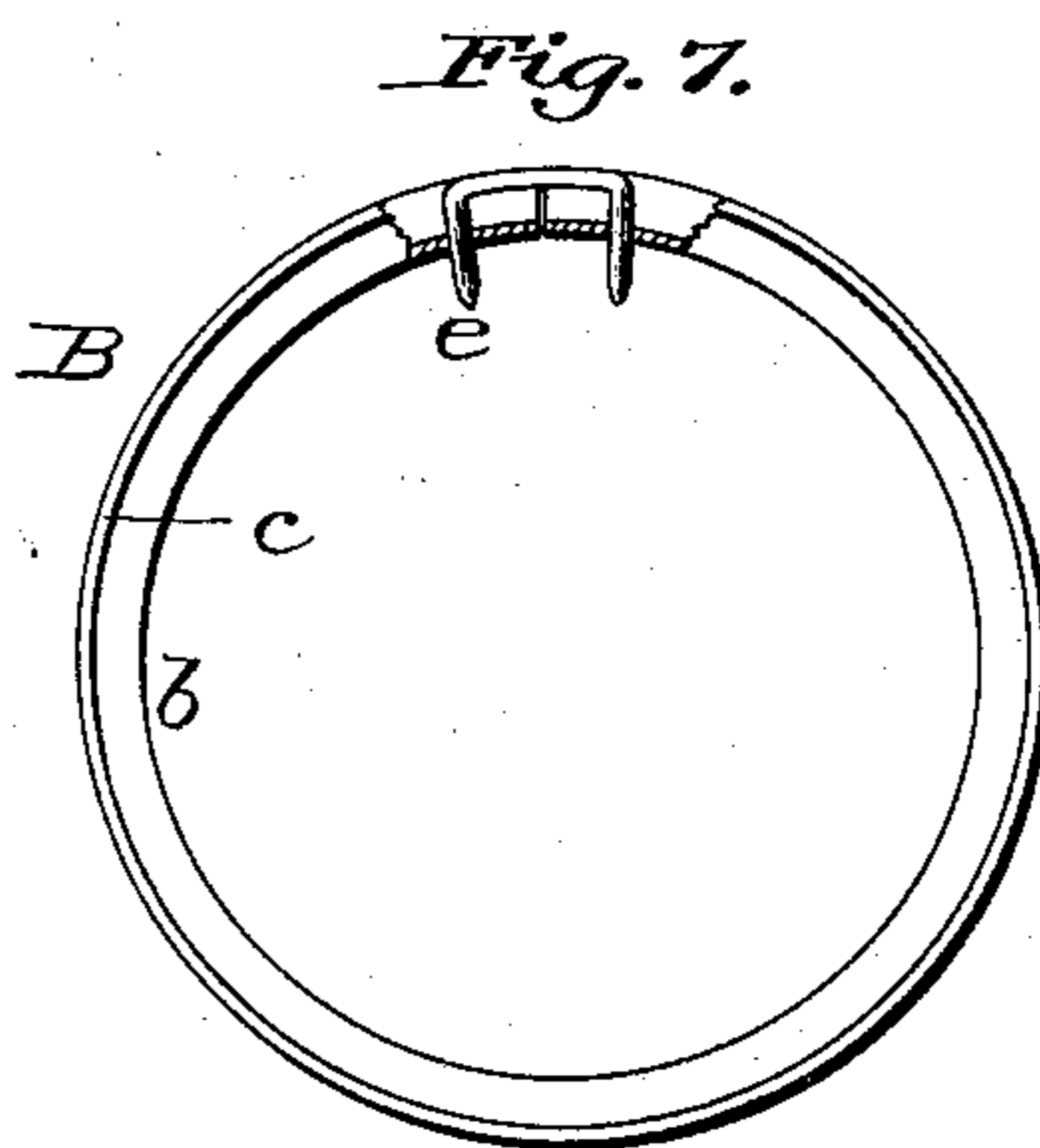
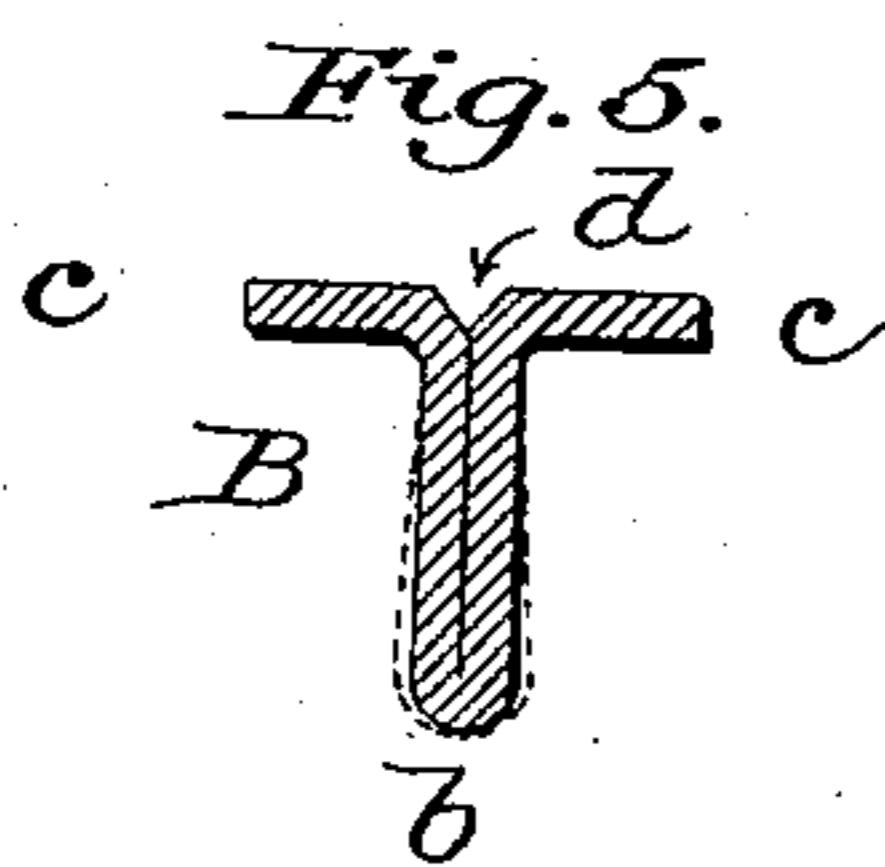
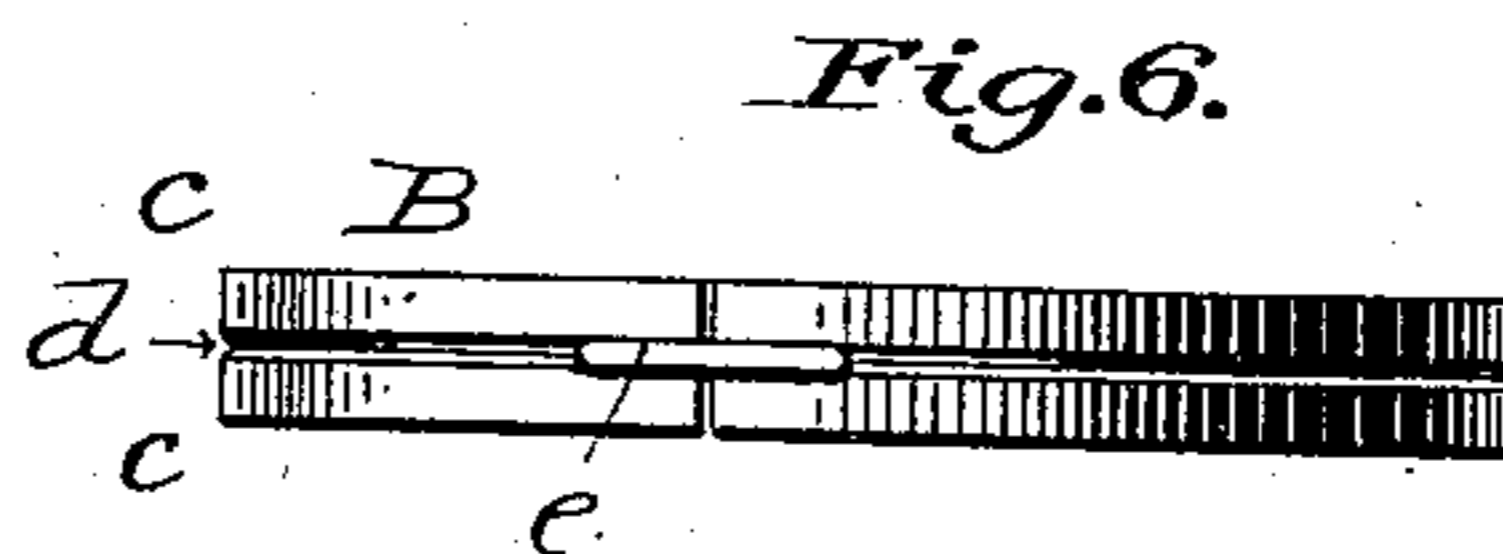
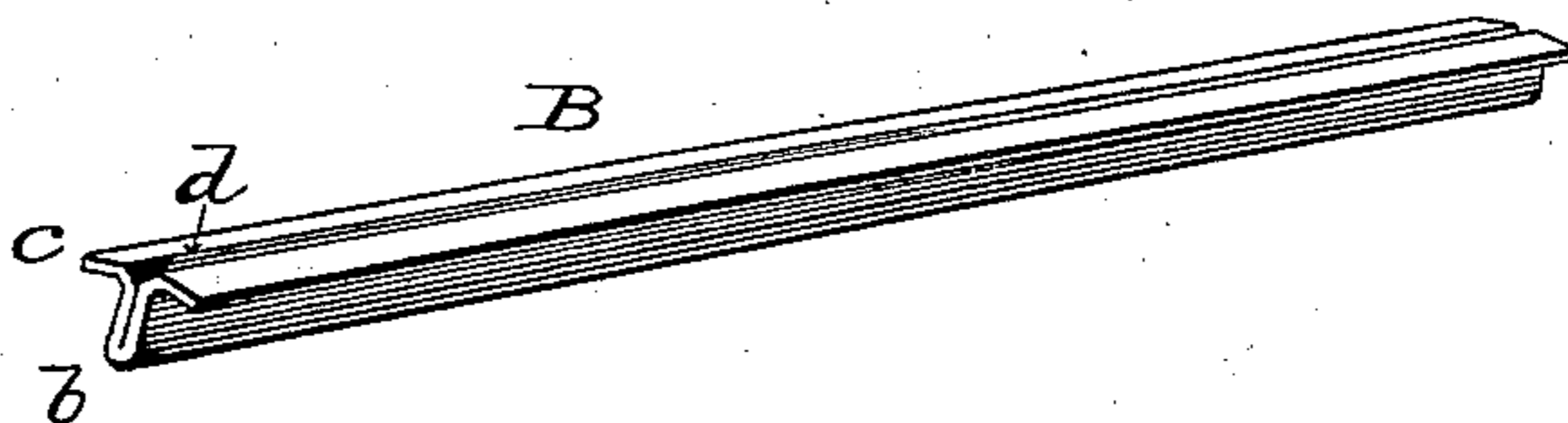
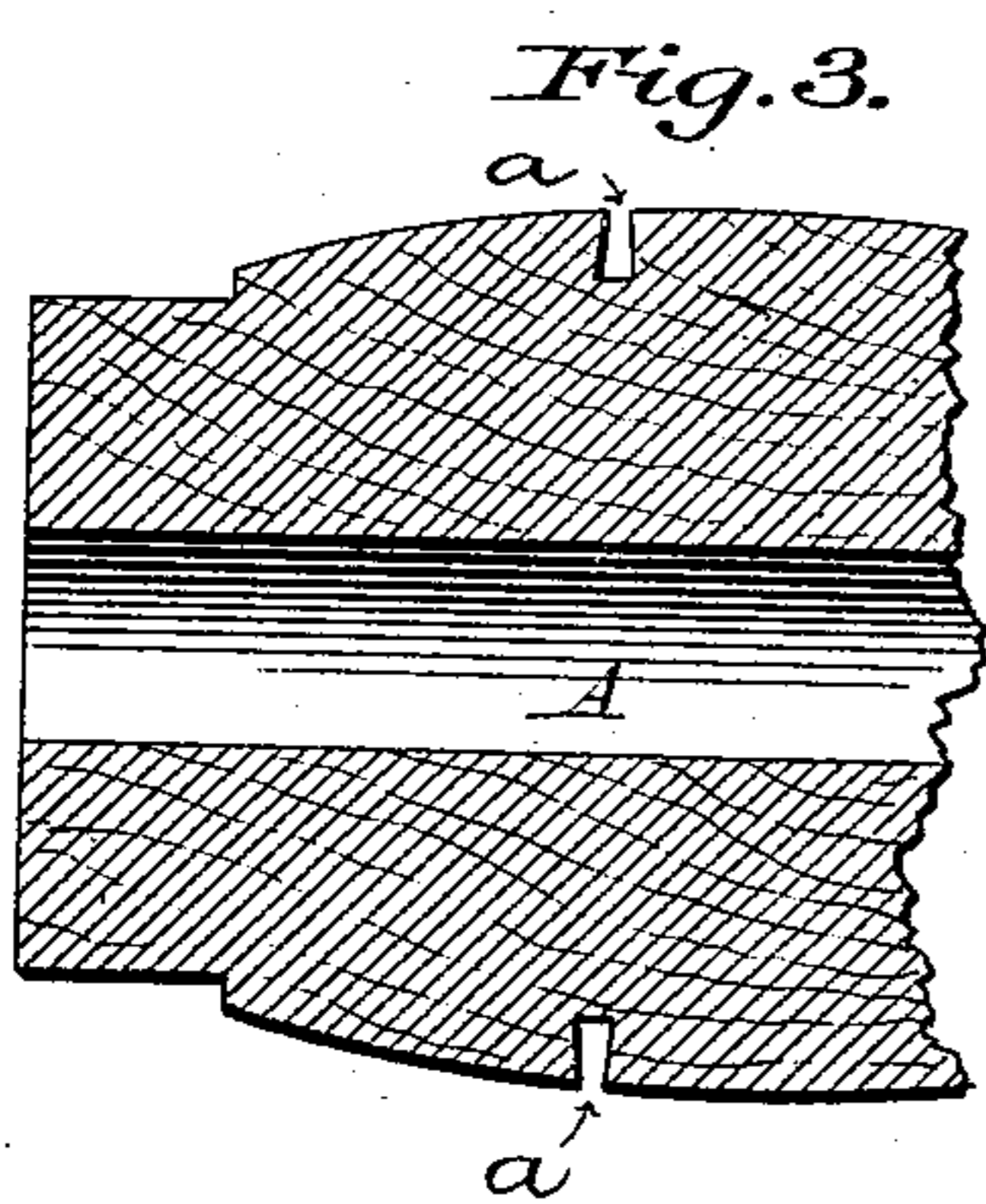
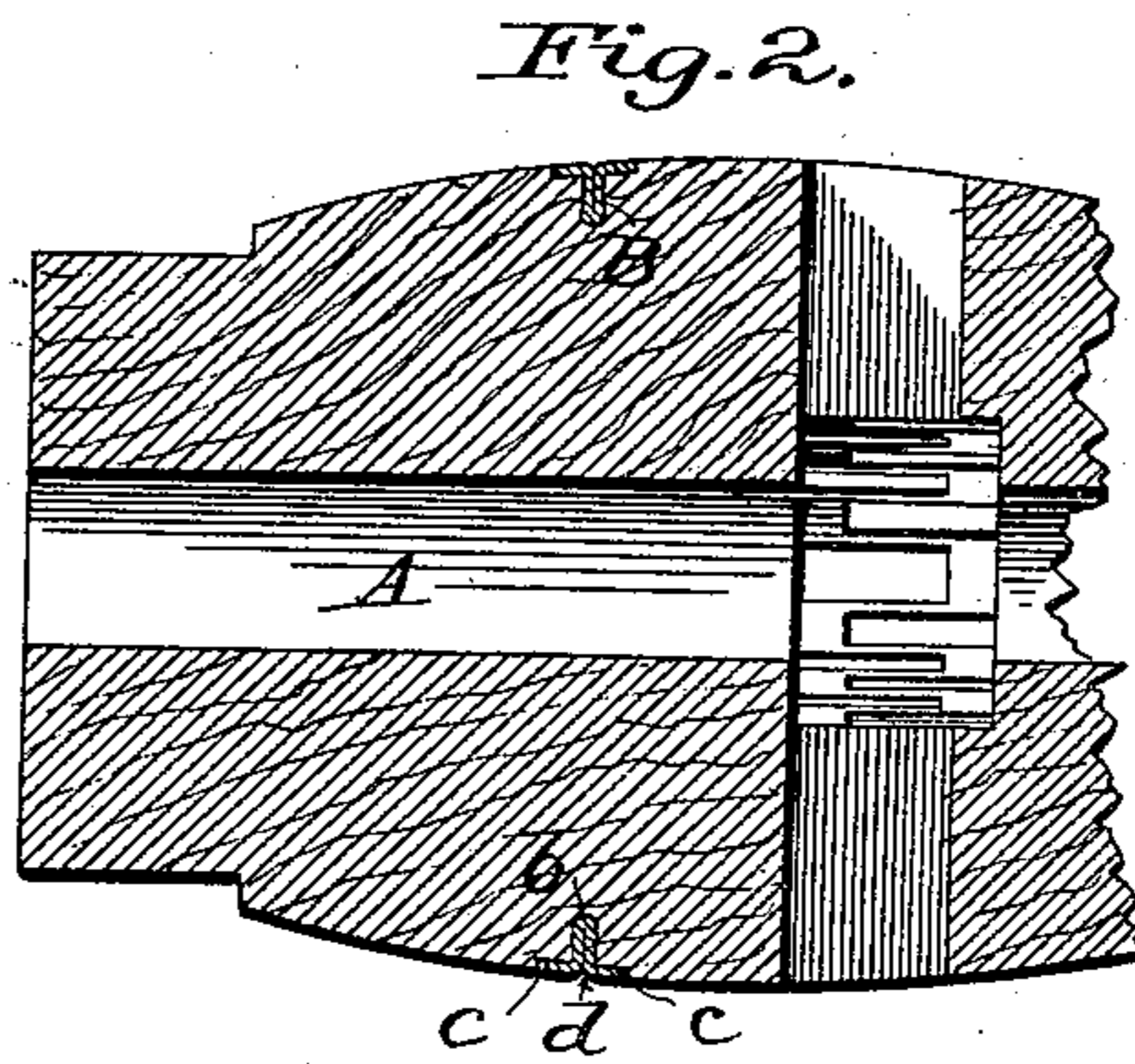
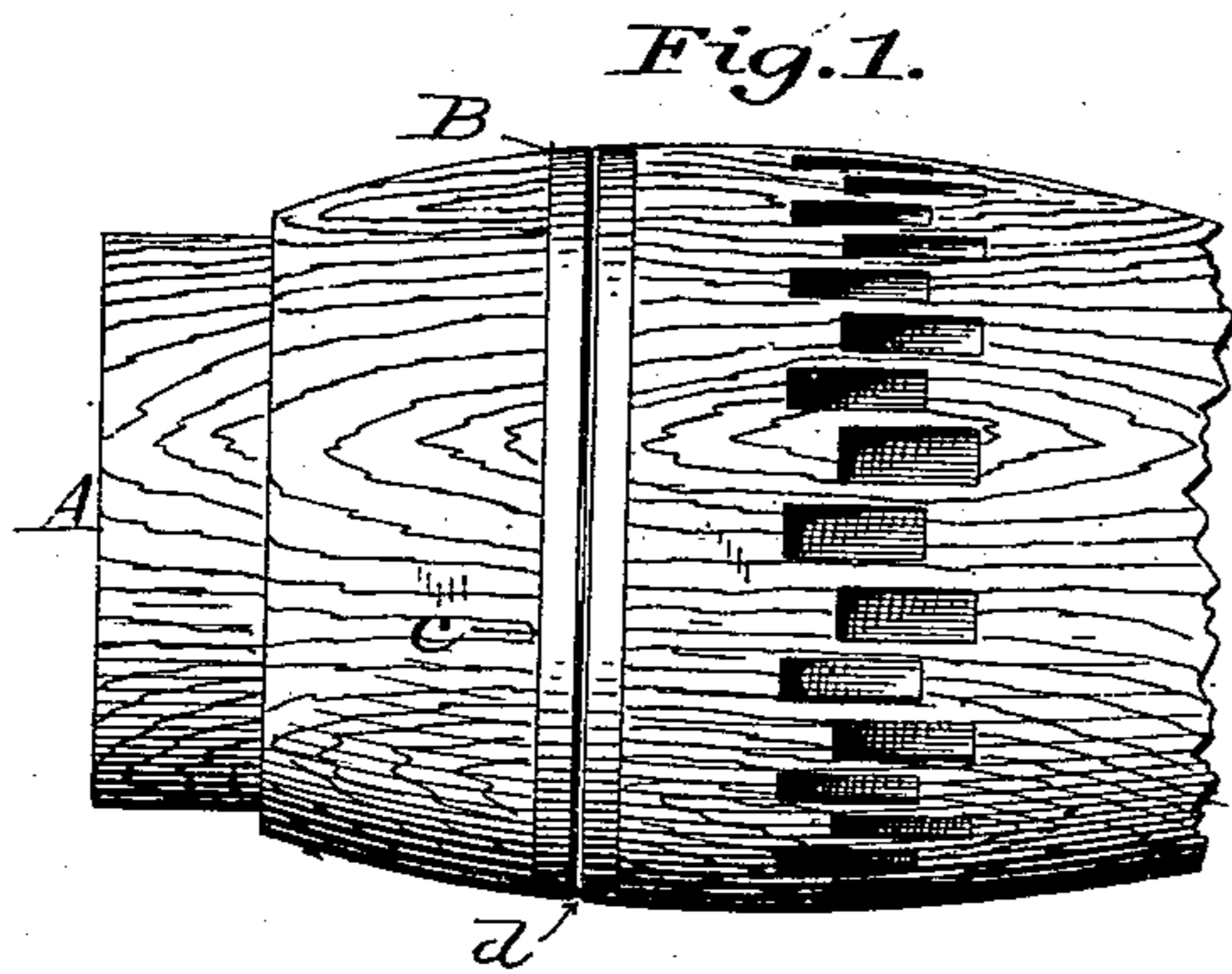
(Model.)

F. W. STARR.

VEHICLE HUB.

No. 322,863.

Patented July 21, 1885.



Witnesses:

Geo. F. Duhamel
Walter S. Dodge

Inventor:

Ferdinand W. Starr:

by Rodger Son,
his Atty.

UNITED STATES PATENT OFFICE.

FERDINAND W. STARR, OF SPRINGFIELD, OHIO, ASSIGNOR OF ONE-HALF
TO THOMAS WALL, OF SAME PLACE.

VEHICLE-HUB.

SPECIFICATION forming part of Letters Patent No. 322,863, dated July 21, 1885.

Application filed March 6, 1885. (Model.)

To all whom it may concern:

Be it known that I, FERDINAND W. STARR, of Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Hub-Bands for Vehicles, of which the following is a specification.

My invention relates to hub-bands; and it consists in a novel construction and mode of applying the same, as hereinafter set forth.

In the drawings, Figure 1 is a top plan view of a section of a hub embodying my improved band; Fig. 2, a longitudinal section of the same, showing a cross-section of the band; Fig. 3, a similar view showing the hub before the band is applied; Fig. 4, a perspective view of the band; Fig. 5, an enlarged sectional view of the same, and Figs. 6 and 7 views showing one manner of joining the ends of the band.

The objects of my invention are to make a band which shall not get loose when once put in place, and to simplify and cheapen its construction, while at the same time making it quite ornamental in appearance.

Referring now to the drawings, A indicates a hub provided with a circumferential groove or recess, *a*, in which the band B is seated. As seen in Fig. 3, the walls of the recess *a* are inclined slightly in order to make a dovetail groove, or, in other words, the base or inner portion of the recess is wider than its mouth. I prefer to make the recess in the hub by means of circular saws inclined in reverse directions to cut the walls in the slanting or inclined form shown; but this, being a common expedient, forms no part of the present invention. The band B, I make of sheet metal, preferably annealed steel, and bend it into T form, as shown enlarged in Fig. 4, the band consisting of a tongue, *b*, to fit into the dovetail groove *a*, and with lateral flanges *c*, which are embedded into the wood of hub, as shown in Fig. 2. The folded edge *b* of the band is inserted into the groove *a*, beginning at one end of the band, and is pressed into the same with a force sufficient to cause the sides of the folded tongue *b* to spread out and fill the groove *a*, while the flanges *c* are embedded flush with the surface of the hub. This operation is conveniently and efficiently performed

by the aid of rolls, which, acting at a single point at a time and with a rolling pressure, give great power with slight impelling force, and permit the operation to be rapidly performed, as the hub can be turned toward the roll or rolls continuously, and the band will be thus wound and pressed into the groove at a single and continuous operation. The band may be so arranged as to have its ends come flush against each other, and consequently no fastening devices need be used. In some cases, however, the ends of the band may be made to overlap each other, and be soldered or brazed together, the tongue *b* being cut away from the overlapping end a slight distance; or, as is preferred, the arrangement shown in Figs. 6 and 7 may be adopted. This last-mentioned plan consists simply of a staple, *e*, having its legs passing through the adjoining or abutting ends of the band and into the hub. At the point where the two lateral flanges *c* diverge there is a depression or groove, *d*, formed in seating the band, which groove gives quite an ornamental appearance to the band. It may, however, be filled with solder or other suitable material and finished off smooth and flush with the rest of the band.

The band is light, cheap, as durable as a continuous band of heavier material, owing to the depth of the folded tongue or web, and is found in practice to give excellent results.

I do not wish to limit myself to the use of any particular metal, as it is apparent that other metals than steel can be used, probably with equal advantages. One of the advantages arising from this construction is that it is only necessary to make a thin narrow cut or recess in the hub instead of a wide one, such as would be necessary to receive a wide and heavy band. Ordinarily where the solid metal bands are employed it is found that they rattle or become loose when the wood shrinks; but owing to the peculiar construction and manner of applying my band the wood can not shrink away from it, and hence it always remains tight. It is not necessary that the recess of groove *a* be dovetailed, as the simple driving in of the folded web-band results in a dovetailed shape seat in the groove, making the band self-holding at every point of its length by reason of the tight lateral pressure

against the folded web and its dovetailed shape.

Having thus described my invention, what I claim is—

- 5 1. A hub-band for vehicles, consisting of a piece of sheet metal bent to T form, substantially as shown and described.
2. The combination, with a hub having an annular dovetail groove, of a metal band seated
10 in and filling said groove, substantially as shown.
3. In combination with a hub having dovetail groove *a*, band B, of T form in cross-section, seated in said groove and spread out to
15 fill the same, as set forth.

4. In combination with hub A, having groove *a*, band B, inserted in said groove, and staple *c*, passing through the contiguous ends of the band and into the hub.

5. As a new article of manufacture, a sheet- 20 metal hub-band having a web or tongue radial to the axis of the hub, substantially as and for the purpose set forth.

FERDINAND W. STARR.

Witnesses:

E. W. McMILLEN,
CHASE STEWART.