

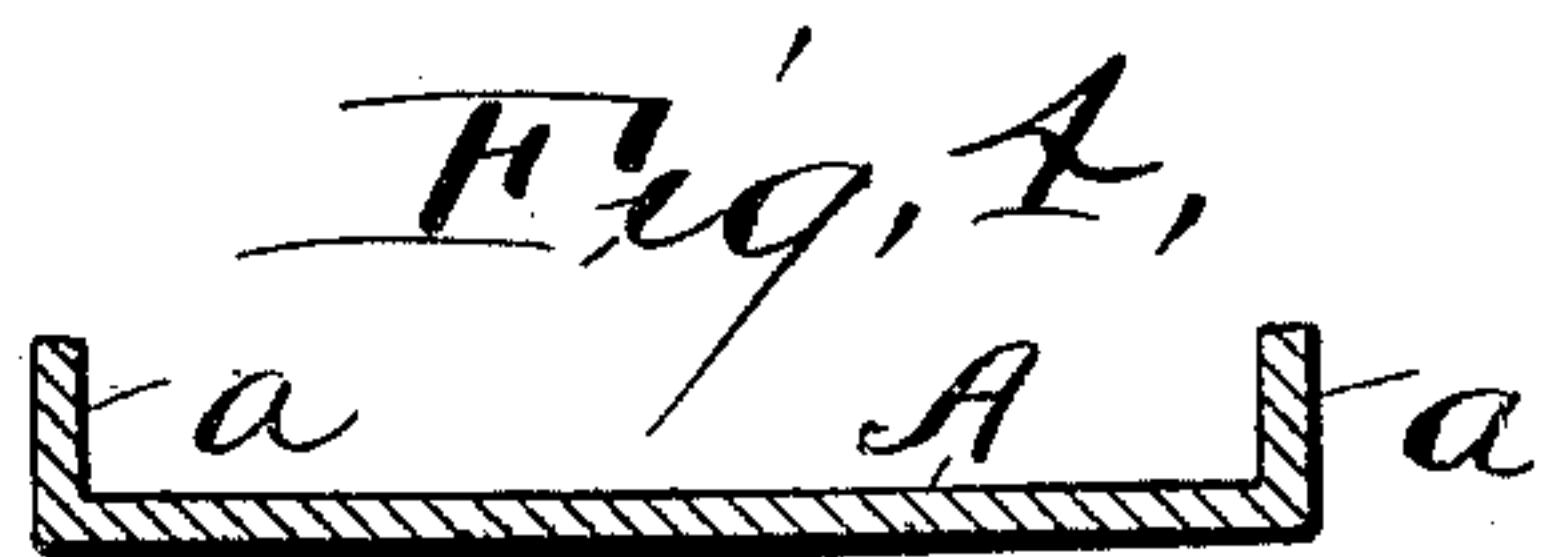
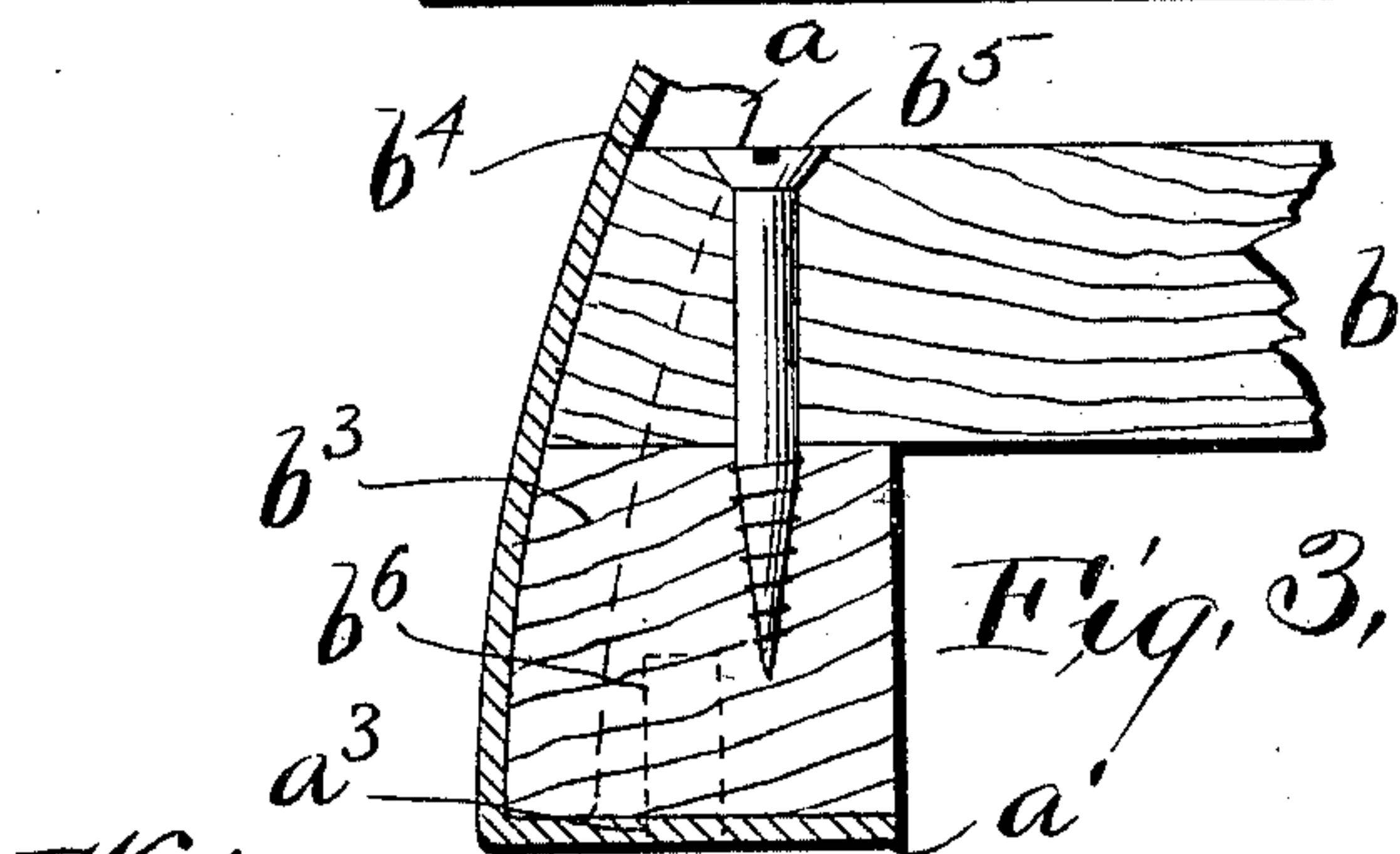
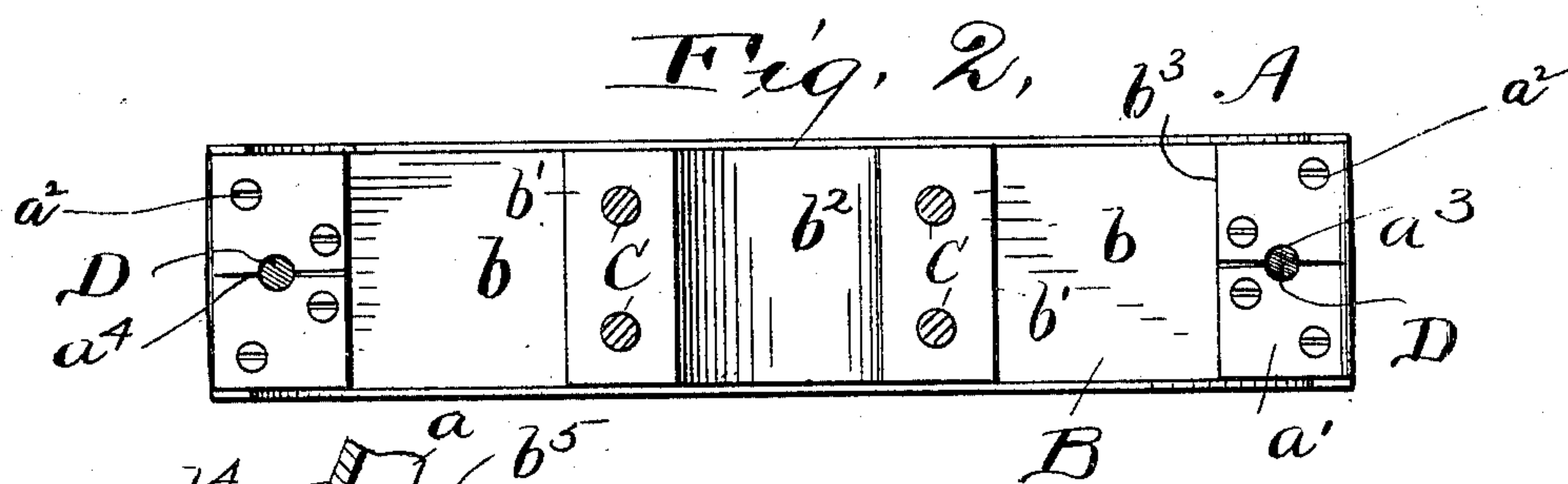
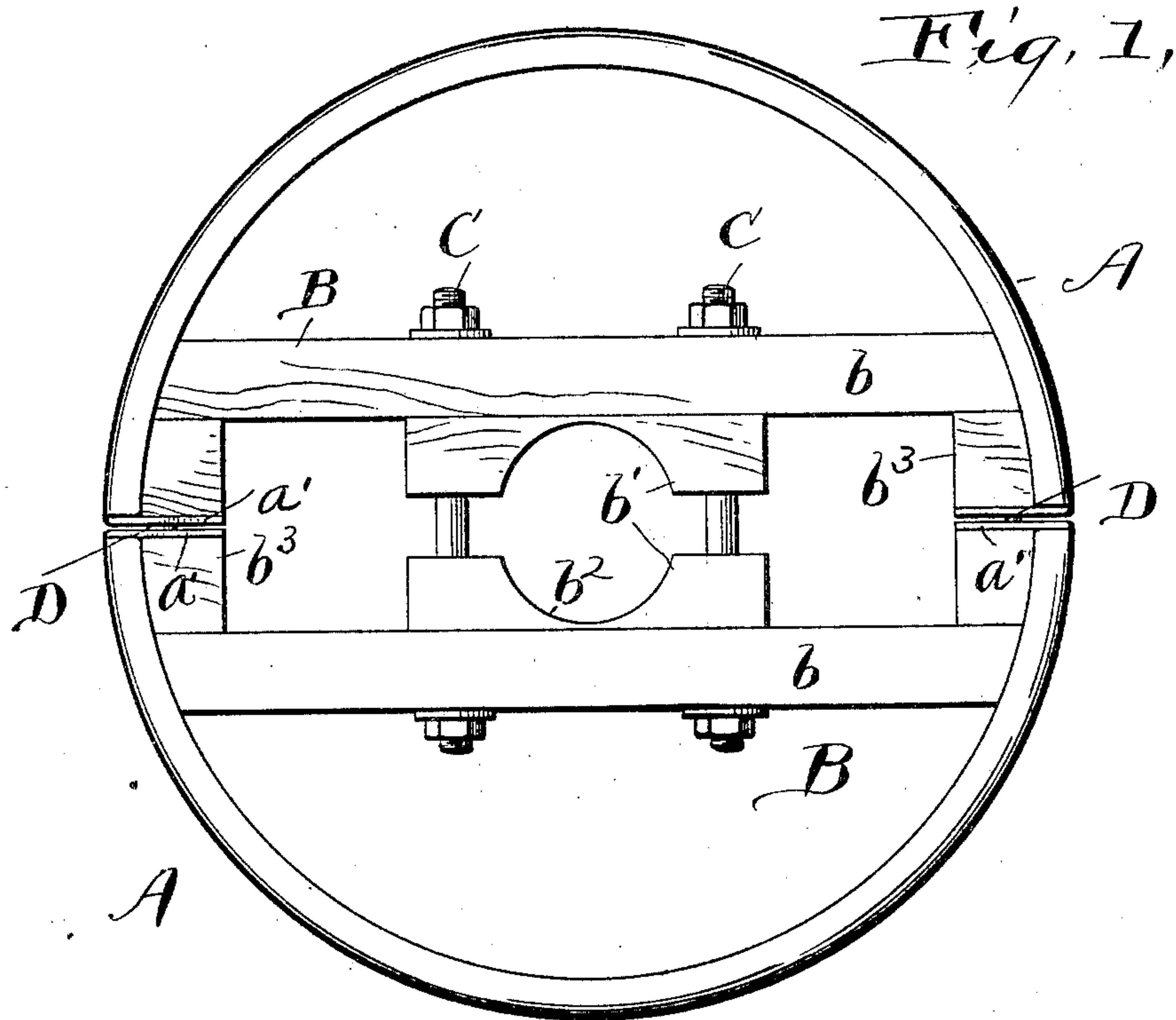
No. 682,419.

Patented Sept. 10, 1901.

A. L. MOORE.
PULLEY.

(Application filed Oct. 22, 1900.)

(No Model.)



Witnesses.
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UNITED STATES PATENT OFFICE.

ARTHUR L. MOORE, OF CLEVELAND, OHIO.

PULLEY.

SPECIFICATION forming part of Letters Patent No. 682,419, dated September 10, 1901.

Application filed October 22, 1900. Serial No. 33,836. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR L. MOORE, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Pulleys, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The object of my invention is to provide a durable and efficient pulley which shall be at the same time inexpensive and simple in construction.

My invention consists in the means I employ to accomplish this, but more particularly it lies in certain construction and combinations of parts more fully described hereinafter, and definitely set forth in the claims.

The drawings clearly show my invention, wherein—

Figure 1 is a side elevation of the pulley complete. Fig. 2 is a view of one-half thereof, looking at the diametrical plane. Fig. 3 is an enlarged section near one end of the spoke-bar, being taken parallel with the side of the pulley. Fig. 4 is a transverse section of the rim.

The two halves of the pulley are preferably made exactly alike. As shown in the drawings, each half consists of the semicircular rim A of sheet metal and the spoke-bar B, to which the ends of the rim are secured. This spoke-bar is preferably built up of the through member b , the center block b' , secured thereto and curved at b^2 to receive the shaft, (or a bushing surrounding it,) and the blocks b^3 on the inner sides of the through members near their ends and secured to them, as by the screw b^5 . The ends of the through members and of the blocks b^3 are curved so as to be concentric with the shaft, and the steel rim lies against these ends. This rim preferably has a flange a at each edge, which strengthens it and extends over the edges of the through members b and the block b^3 , protecting them. The extreme ends of the rim a' may have the flange cut away and bent over into the diametric plane onto the block b^3 , being there secured by screws a^2 . Thus the rim protects the edges of the spoke-bar.

Bolts C pass through the spoke-bars on opposite sides of the shaft and are adapted to clamp the pulley thereto. In such position the two spoke-bars abut through the blocks b^3 and the intermediate turned-over ends a' of the rim. The blocks b^3 are thicker than the block b^2 , so that when the halves of the pulley abut the blocks b^2 are out of contact with each other and the spoke-bars may be drawn together around the shaft with the desired clamping force. Thus a very tight clamping of the pulley on the shaft may be obtained. If but two spoke-bars are employed, which is the preferable form for small pulleys, the spoke-bars may bend inward at the shaft quite materially without altering the periphery of the rim or giving it any strain, the corners b^4 of the through members b' simply moving away slightly from the steel rim.

To more securely lock the halves of the pulley in place at the meeting edges of the rim, I may make holes a^3 through the ends a' of the rim and alining therewith recesses b^6 in the blocks b^3 for the reception of interlocking pins D, projecting across the two halves. When the pulley-face is crowned, as shown in Fig. 4, the turned-over ends a' of the rim may have a narrow V-shaped piece cut out, letting the ends bend toward each other, substantially meeting on the line a^4 . This is done to make these ends a' lie flat upon the face of the blocks b^3 , the crown given to the pulley-face tending to cause the ends a' to pucker or bulge up at the middle.

With my pulley the torsional strain at starting the machinery, for example, is easily taken up by the wooden spoke-bars, while the very light steel rim relieves against disruption from centrifugal force.

Having described my invention, I claim—

1. In a pulley, the combination of a wooden spoke-bar adapted to clasp a shaft, and a metal rim having inwardly-projecting flanges, said spoke-bar lying between said flanges and abutting the inner faces thereof, substantially as described.

2. In a pulley, in combination, wooden members and two metal rim-sections having inwardly-projecting side flanges, said wooden

members lying within said rim-sections and having their ends abutting the body of the rim and their sides near the ends abutting said flanges, substantially as described.

- 5 3. A pulley made in halves, each half including a spoke-bar and a semicircular metal rim secured thereto, said spoke-bar consisting of a through member and an end block near
10 each end thereof on that side of said spoke-bar which is toward that diameter of the pulley which is parallel to said through member, said metal rim having at its edges flanges with which the sides of said spoke-bar and end blocks abut, substantially as described.
- 15 4. A pulley made in halves, each half including a spoke-bar and a semicircular metal rim secured thereto, said spoke-bar consisting of the through member b , the end blocks b^3 secured thereto at the ends thereof, and a
20 center bearing-block b' , the ends of the metal rim being bent inward diametrically and secured to the diametric face of the blocks b^3 , substantially as described.

- 25 5. A pulley made in halves, each half including a wooden spoke-bar and a metal rim,

said rim extending along the ends of the spoke-bar and bent in on the diametric face thereof and there secured, substantially as described.

6. A pulley made in halves, each half including a wooden spoke-bar and a metal rim, 30 said rim extending along the ends of the spoke-bar and being bent in on the diametric face thereof and there secured, and having inwardly-projecting flanges at its edges extending over the sides of the spoke-bar near 35 its ends, substantially as described.

7. A pulley made in halves, each half including a wooden spoke-bar and a metal rim, said rim extending along the ends of the spoke-bar and bent in on the diametric face 40 thereof and there secured, said rim being crowned and the bent-over ends of the rim being bifurcated, substantially as described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses. 45

ARTHUR L. MOORE.

Witnesses:

F. D. AMMEN,
ALBERT H. BATES.