

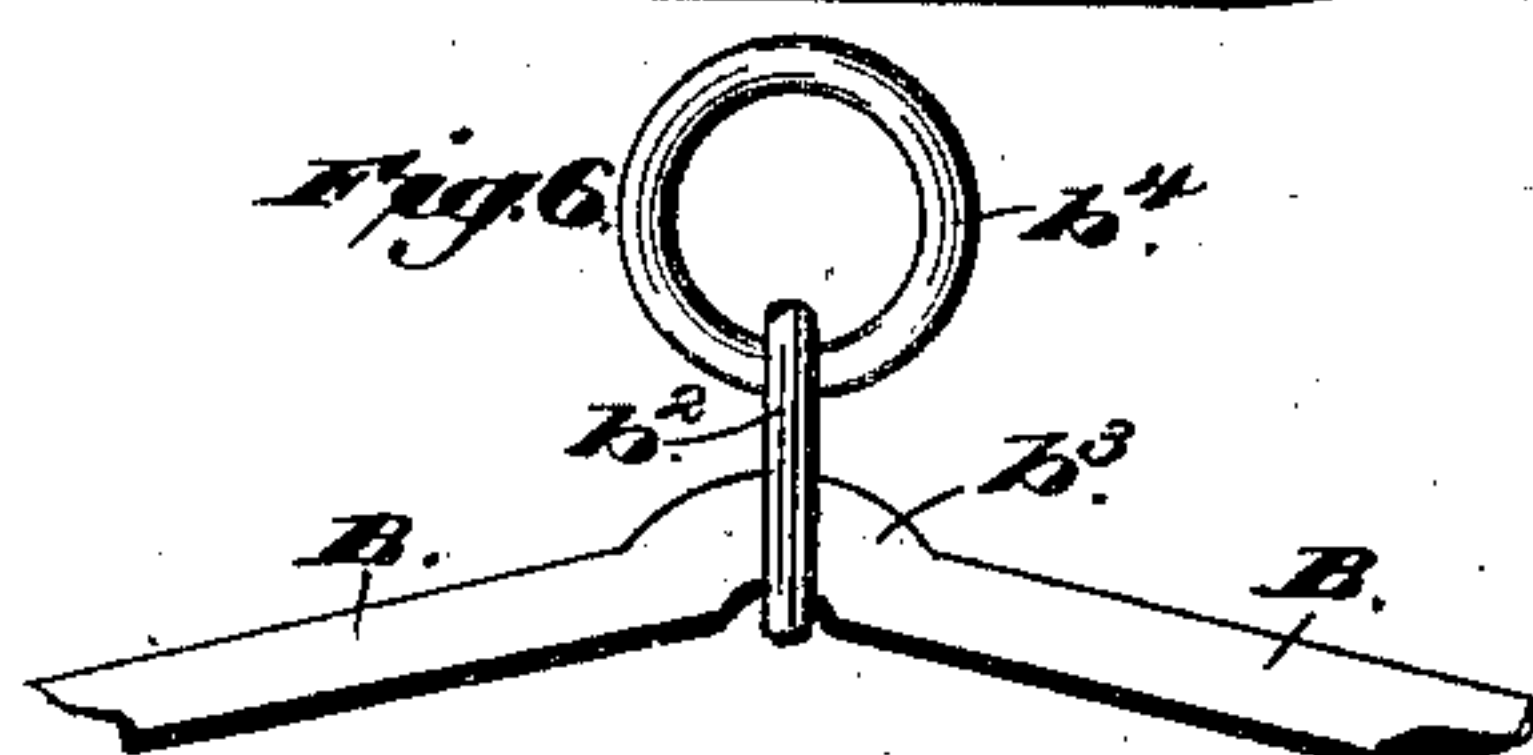
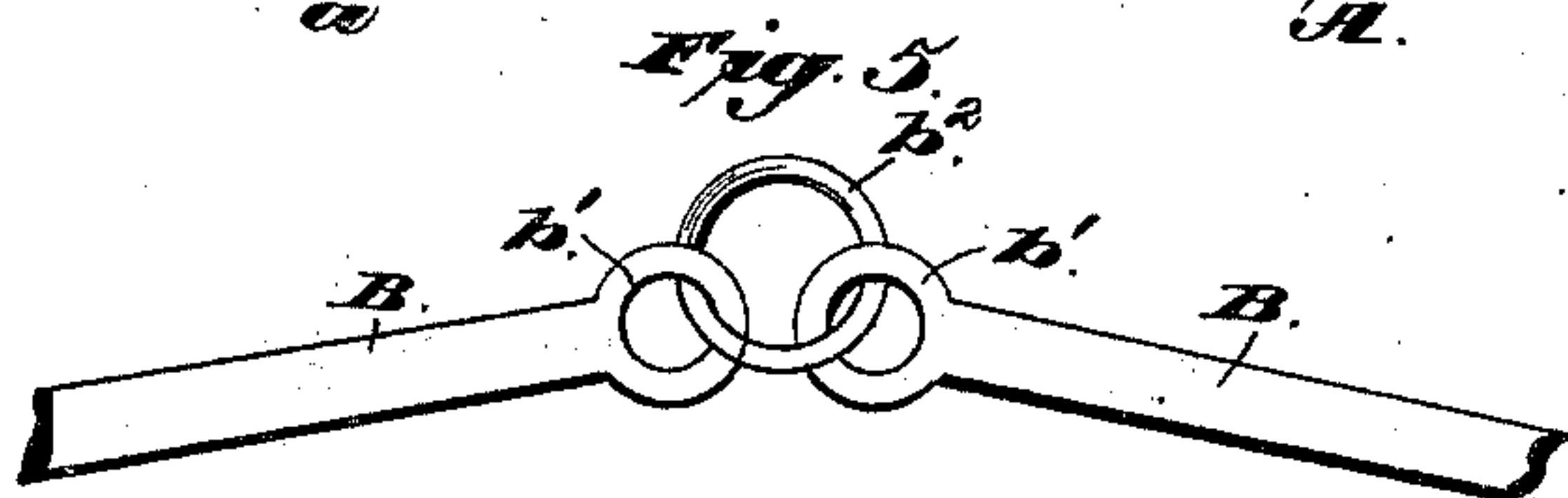
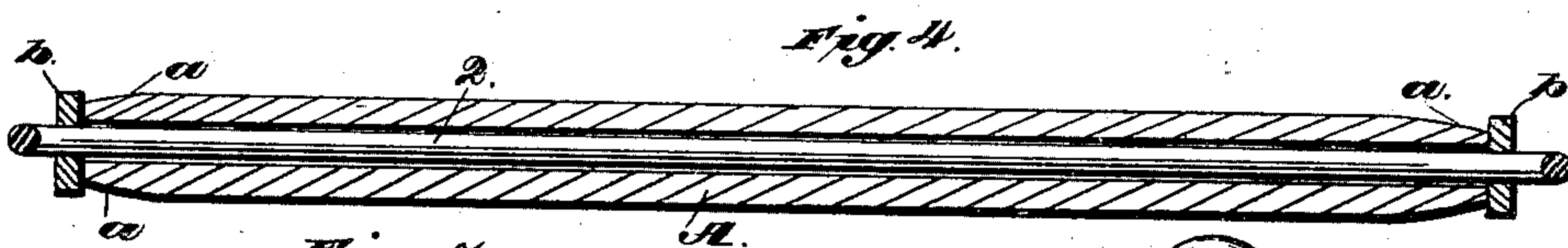
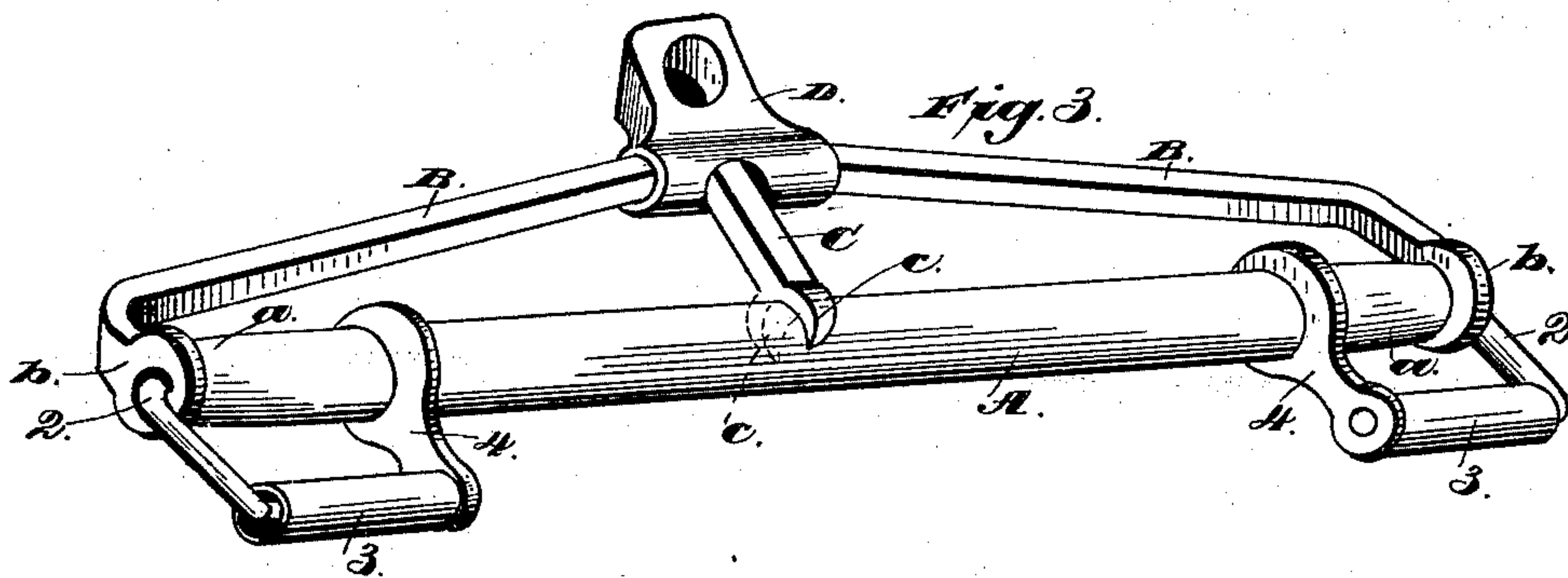
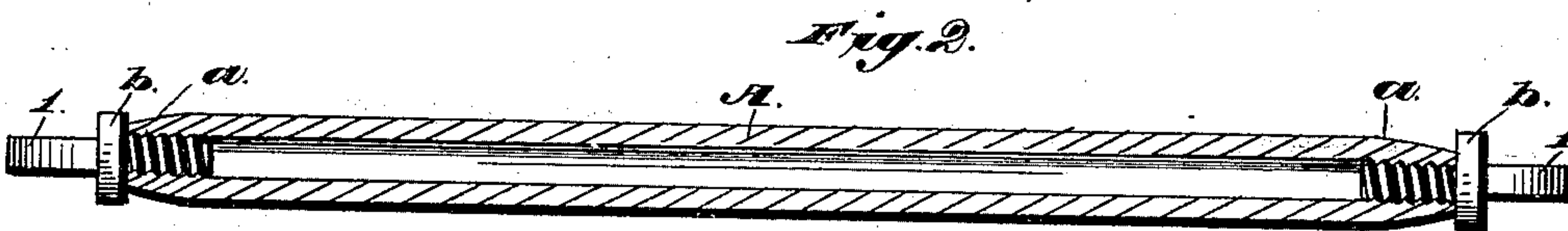
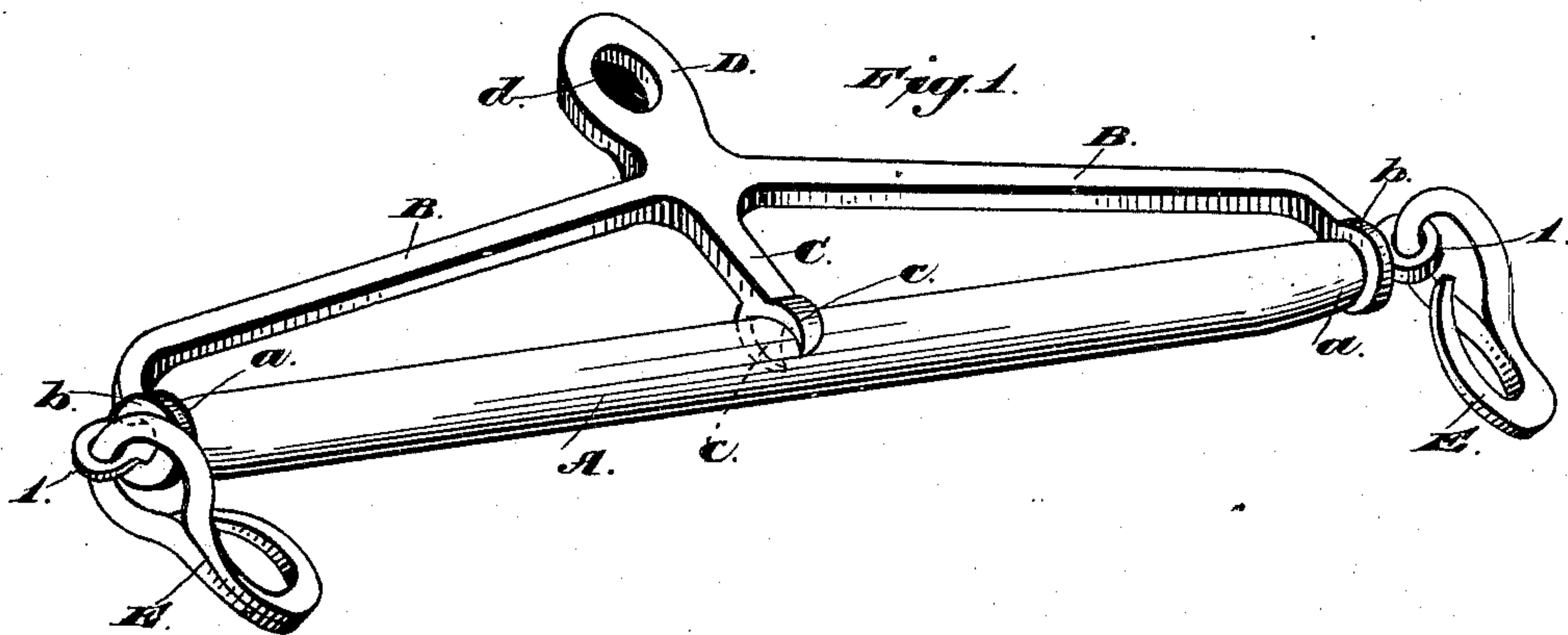
(No Model.)

G. E. JUDD & A. PICKENS.

WHIFFLETREE.

No. 343,817.

Patented June 15, 1886.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE E. JUDD AND ADOLPHUS PICKENS, OF IONIA, MICHIGAN.

WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 343,817, dated June 15, 1886.

Application filed April 5, 1886. Serial No. 197,850. (No model.)

To all whom it may concern:

Be it known that we, GEORGE E. JUDD and ADOLPHUS PICKENS, citizens of the United States, residing at Ionia, in the county of Ionia and State of Michigan, have invented certain new and useful Improvements in Whiffletrees and Neck-Yokes; and we 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.

Our invention relates to improvements in metallic whiffletrees and neck-yokes; and it consists in the construction and arrangement of the parts, which will be more fully hereinafter described, and definitely pointed out in the claims.

The object of our invention is to provide a whiffletree or neck-yoke which shall be capable of resisting a heavy strain which is brought to bear on the ends thereof, the construction of the parts of the same being light and durable, efficient and positive in their use, and cheaply manufactured. We attain these objects by the construction of whiffletree and neck-yoke represented in the accompanying drawings, wherein like letters of reference indicate similar parts in the several views, and in which—

Figure 1 is a perspective view of our improved whiffletree. Fig. 2 is a longitudinal section of the main body portion of the same. Fig. 3 is a perspective view of our improved whiffletree, as adapted to be used as a neck-yoke, and having a securing-rod passing through the same. Fig. 4 is a longitudinal section of the body portion of the whiffletree, as shown in Fig. 3. Fig. 5 is a modified form of construction of the brace-arms. Fig. 6 is also a modified form of construction of the brace-arms.

A indicates the body portion of the whiffletree, which may be formed of suitable metallic pipe. The ends of this body portion are filed or otherwise suitably worked down, as at *a*, and against these ends eyes *b*, formed with the inclined brace-arms B B, rest, and are secured by the screw-eyes 1 1, which are adapted to be screwed into the ends of the body portion A.

Extending out from the central portion of the body A is a strut, C, which has curved projections *c c*, formed with the upper and

lower sides thereof, which engage with and have movement around the body portion A, resting on said body but not secured thereto. The strut C extends outwardly and meets the brace-arms B B, and on the outer side of the brace-arms a projection, D, is formed with an aperture, *d*, therein, which is adapted to engage with the draft-chains or other securing links of the vehicle.

The brace-arms B B, the strut C, and the projection D are formed in one piece and at one operation, the whole forming a truss. The eyes 1 1 have suitable links or staples, E, passing therethrough, to which the traces may be attached. As shown in Fig. 2, the inside end portions of the body A are screw-threaded a short distance, and the ends of the eyes 1 1 also screw-threaded, and engage the said end portions.

As shown in Fig. 3, the device shown in Fig. 1 is adapted to be used as a neck-yoke. In this instance the eyes are replaced by a small metallic rod, 2, passing through the entire length (see Fig. 4) of the body portion A, and bent at an angle some distance from the body A, to form a securing-link for the stay-chains. The bent portion of the metallic rod 2 is encircled by a small metallic cylinder, 3, and the end of the said rod is engaged by one end of a link, 4, the other end of which link encircles the body A. In this instance the projection D, as seen in Fig. 1, is dispensed with, and a leather loop or attaching-strap is secured around the brace-arms B B and strut C, which is adapted to engage with the end of the wagon-pole.

By making the body portion A in the form of a tube, great strength is acquired, and by having a metallic rod passing through said tube and free to turn therein, as shown in Fig. 3, the strength of the tube is proportionately re-enforced.

In Figs. 5 and 6 modified forms of uniting the ends of the brace-arms B B are shown. In Fig. 5 the two ends of the braces, at their greatest point of incline, have eyes *b'*, formed integral therewith, and the two united by a ring, *b''*, which is adapted to be suitably attached to the vehicle. In Fig. 6, the point where the two arms B B meet is formed with a curved projection, *b'''*, which has a recess formed on its inner side for the reception of a

ring, b^2 , and this ring b^2 has another ring, b^4 , passing therethrough, in order that the means of securing may be in a relative position to the place of securement on the vehicle.

5 It is obvious that many detail changes in the construction of the parts of our improved whiffletree and neck-yoke could be made and substituted for those shown and described without materially departing from the nature
10 and principle of the invention.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a whiffletree or neck-yoke, the combination of a tubular body portion, a strut movably situated at or about the center of the body portion, inclined brace-arms movably secured to the ends of the body portion, suitable means for attaching the device to a vehicle, said strut, brace-arms, and attaching means being formed in one piece and forming a truss, and means for securing the ends of the brace-arms to the tubular body portion, substantially as described.

2. In a whiffletree or neck-yoke, the combination of a tubular body portion, a strut movably resting against the center of the body portion, brace-arms having eyes at one end attached to the ends of the body portion and extending outwardly on an incline at their other ends, a securing-projection on the outer side of said brace-arms, the strut, brace-arms, and securing-projection being formed in one piece, suitable screw-eyes for securing the ends of the brace-arms to the tubular body, as set forth, and links or staples engaging said securing-eyes and the tubular body, substantially as and for the purposes specified.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE E. JUDD.
ADOLPHUS PICKENS.

Witnesses:

R. D. SESSIONS,
JAMES C. FERRY.