

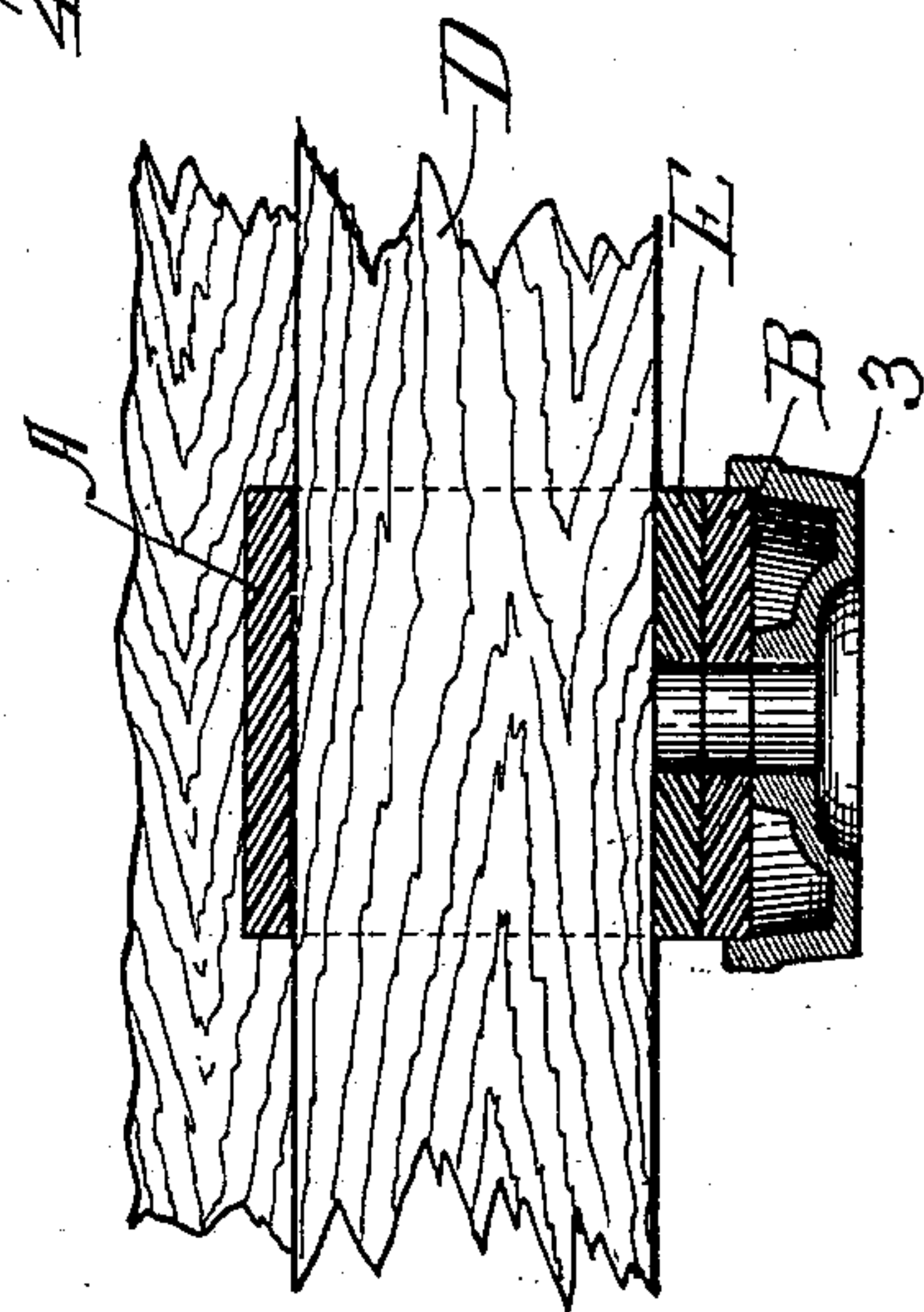
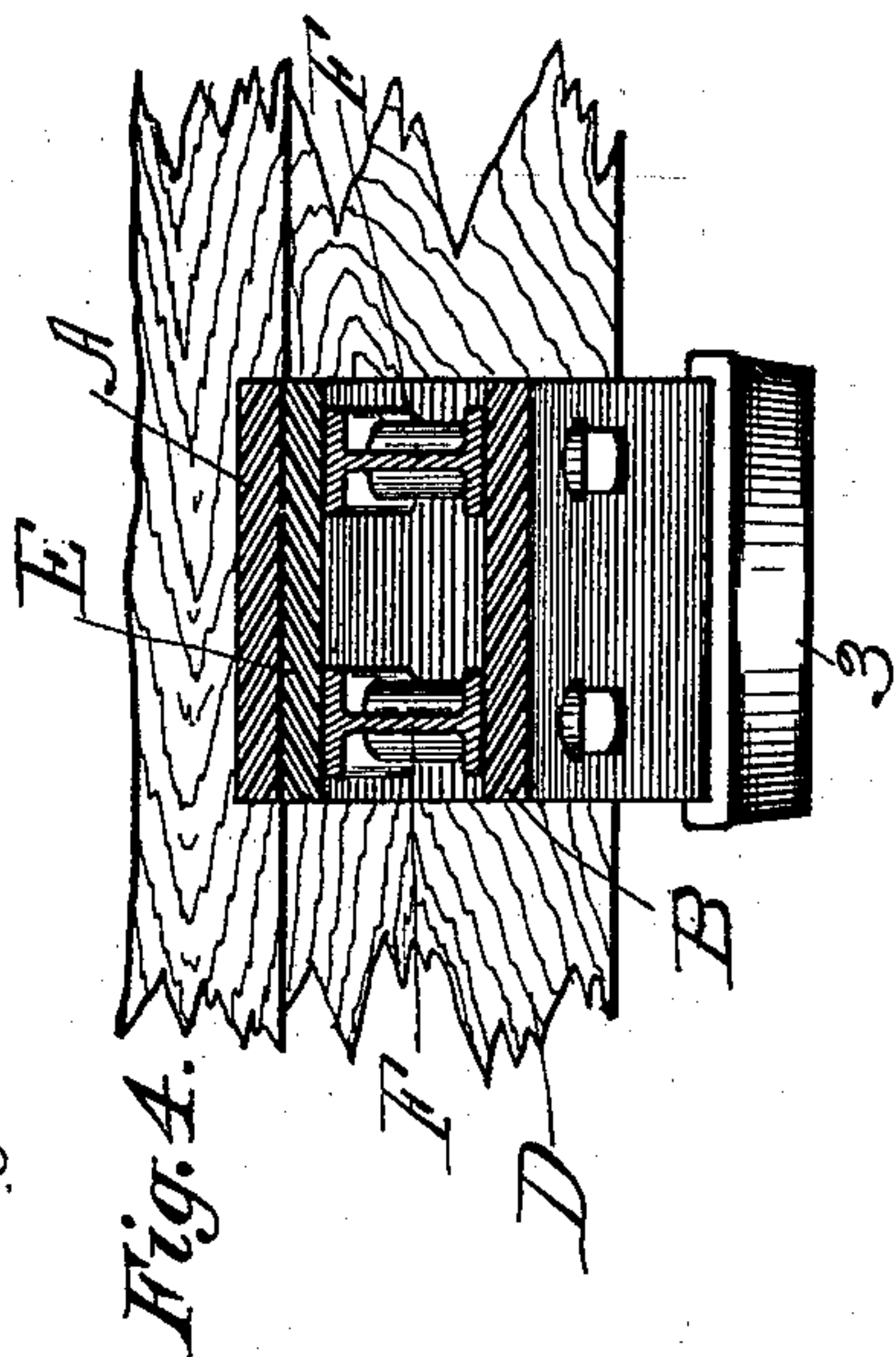
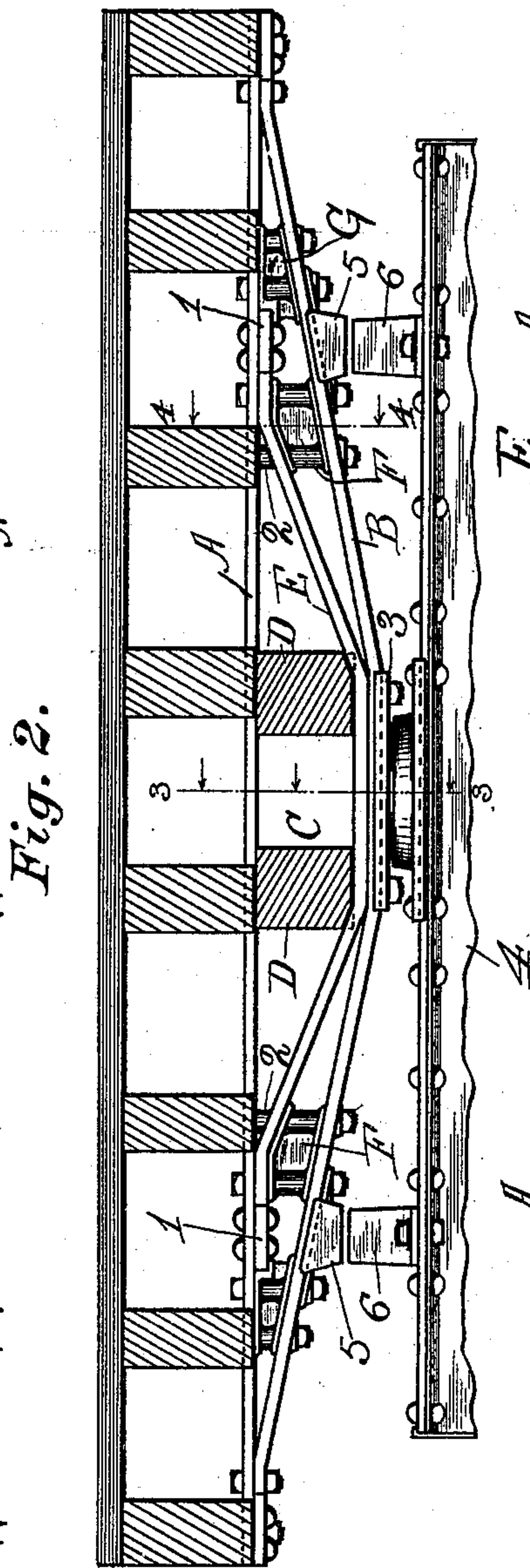
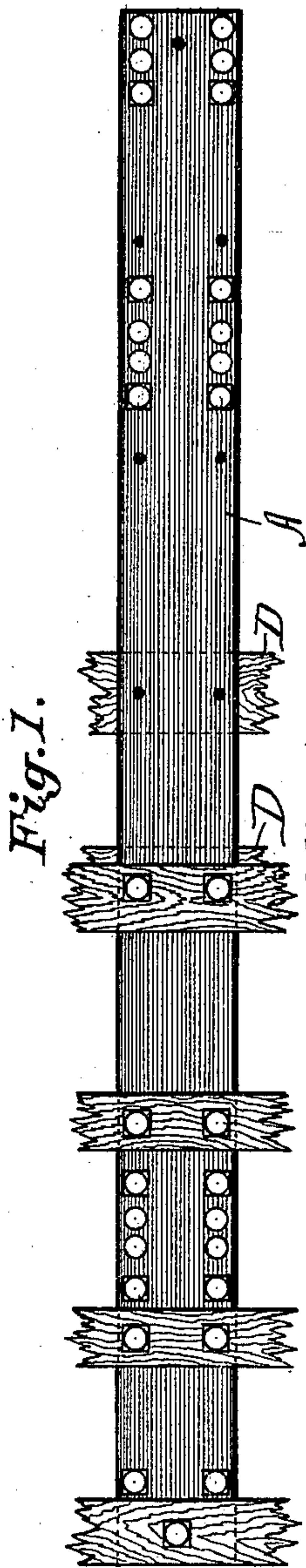
No. 624,174.

Patented May 2, 1899.

J. J. CASEY & H. PRIES.  
BODY BOLSTER FOR CARS.

(Application filed Oct. 17, 1898.)

(No Model.)



Witnesses:  
Erwin J. Lotz  
Benjamin W. Morfoot

Fig. 3.  
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John J. Casey and  
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By Attorney  
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# UNITED STATES PATENT OFFICE.

JOHN J. CASEY AND HERMAN PRIES, OF MICHIGAN CITY, INDIANA.

## BODY-BOLSTER FOR CARS.

SPECIFICATION forming part of Letters Patent No. 624,174, dated May 2, 1899.

Application filed October 17, 1898. Serial No. 693,748. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN J. CASEY and HERMAN PRIES, citizens of the United States, residing at Michigan City, in the county of La Porte and State of Indiana, have invented certain new and useful Improvements in Body-Bolsters for Cars; 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 a novel construction in a body-bolster for cars, the object being to provide a cheap and rigid device of this character which will bear great strain without sagging at its ends and permit of draft-timbers extending through and beyond the body-bolster; and it consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings, illustrating our invention, Figure 1 is a top plan view of a body-bolster constructed in accordance with our invention. Fig. 2 is a sectional view through the floor of a car, showing our bolster in side elevation. Fig. 3 is a sectional view on the line 3 3 of Fig. 2. Fig. 4 is a sectional view on the line 4 4 of Fig. 2.

To various car body-bolsters now in general use there are numerous objections, which we have overcome in our present construction. In the first place such bolsters lack sufficient strength and rigidity in the compression members, so that after they have been in use for some time they sag at the ends, thereby bringing the side bearings on the body and truck bolsters, respectively, into close contact and causing the weight to bear thereon instead of upon the center plates. This is extremely objectionable, for the reason that the truck is hindered from turning freely in rounding curves and again in coming upon straight track, thus holding the flanges of the wheels at an acute angle to the rails and causing them to wear. This not only exposes the flanges and the rails to great wear, but also increases friction to such an extent as to greatly increase the load on the motive power. Another objection to many body-bolsters is that their construction does not permit of the use of draft-timbers extending through and beyond body-bolsters, using short draft-tim-

bers extending only to body-bolsters and in no manner assisting the center sills to bear the strains; but, on the contrary, such draft-timbers act as levers to break the center sills.

To overcome these and other objections and provide a cheap and rigid body-bolster, we construct the latter of a bar A, which forms the tension member and is provided with abutting stops *a* and 1, riveted or welded to the tension member A. The end portions of compression members B and E are secured to said tension member A by means of bolts or rivets (bolts preferred) and abut against said stops *a* and 1, respectively. Said compression member E consists, preferably, of a wrought-iron bar inclined between its middle and end portions, so as to leave a space C between its middle portion and the tension member A to receive the draft-timbers D. The additional space at C may be filled with metal or wood. The second compression member B is placed at its middle portion, immediately under compression member E, and forms a seat for compression member E and is similar in form to the latter. The end portions of member B are secured to tension member A with bolts or rivets, preferably bolts. Struts F are interposed between the members B and E at the end portion of the latter, and struts G are interposed between members A and B at points slightly beyond the ends of member E. Stops 1 1 interpose between the end of said member E and said strut G to prevent shearing strains on bolts or rivets used in securing said parts. Struts 2 are interposed between the members A and E adjacent to the connection of the latter with the former. Said strut 2 serves to prevent bending at this point.

By means of our construction the compression members can be readily taken down, and thus the draft timbers can be removed and replaced without difficulty. This is obviously very advantageous.

The center plate 3 is mounted on the lower face of the member B at its middle portion and engages the center bearing on the truck-bolster 4. The side bearing-plates 5 are mounted upon the lower face of the member B at points below the plates 1 and are adapted to rest upon the side bearings 6 of the bolster 4 when the car-body lurches.



Our bolster is extremely rigid, being effectually braced and strengthened at all points of greatest strain. By means of such rigidity the side bearings on body-bolster are always held a given distance above the side bearings on truck-bolster, thus reducing friction and preserving the function of such bearings, which are only to limit the lurchings of the car-body. Our construction is also extremely simple, cheap, and light.

We claim as our invention—

A body-bolster for cars, comprising a tension member, and inner and outer compression members secured thereto, said inner compression member being secured at its ends to said tension member at points about midway between the middle and ends of the latter, and inclined downwardly from its ends to its middle portion, thereby providing a space between its middle portion and said tension member for the passage of the draft-beams, said outer compression member supporting

said inner member at its middle portion and secured at its ends directly to the end portions of said tension member, by means of bolts passing through the ends of both said members, independent stops on said tension member against which the ends of said compression members abut respectively, whereby the thrust on the tension member is distributed and the latter braced between its middle and end portions, and struts interposed between the end portions of said inner compression member and the adjacent portion of said outer compression member, and between the latter and said tension member.

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

JOHN J. CASEY.  
HERMAN PRIES.

Witnesses:

WALTER J. OGDEN,  
ALLEN SAMMONS.