

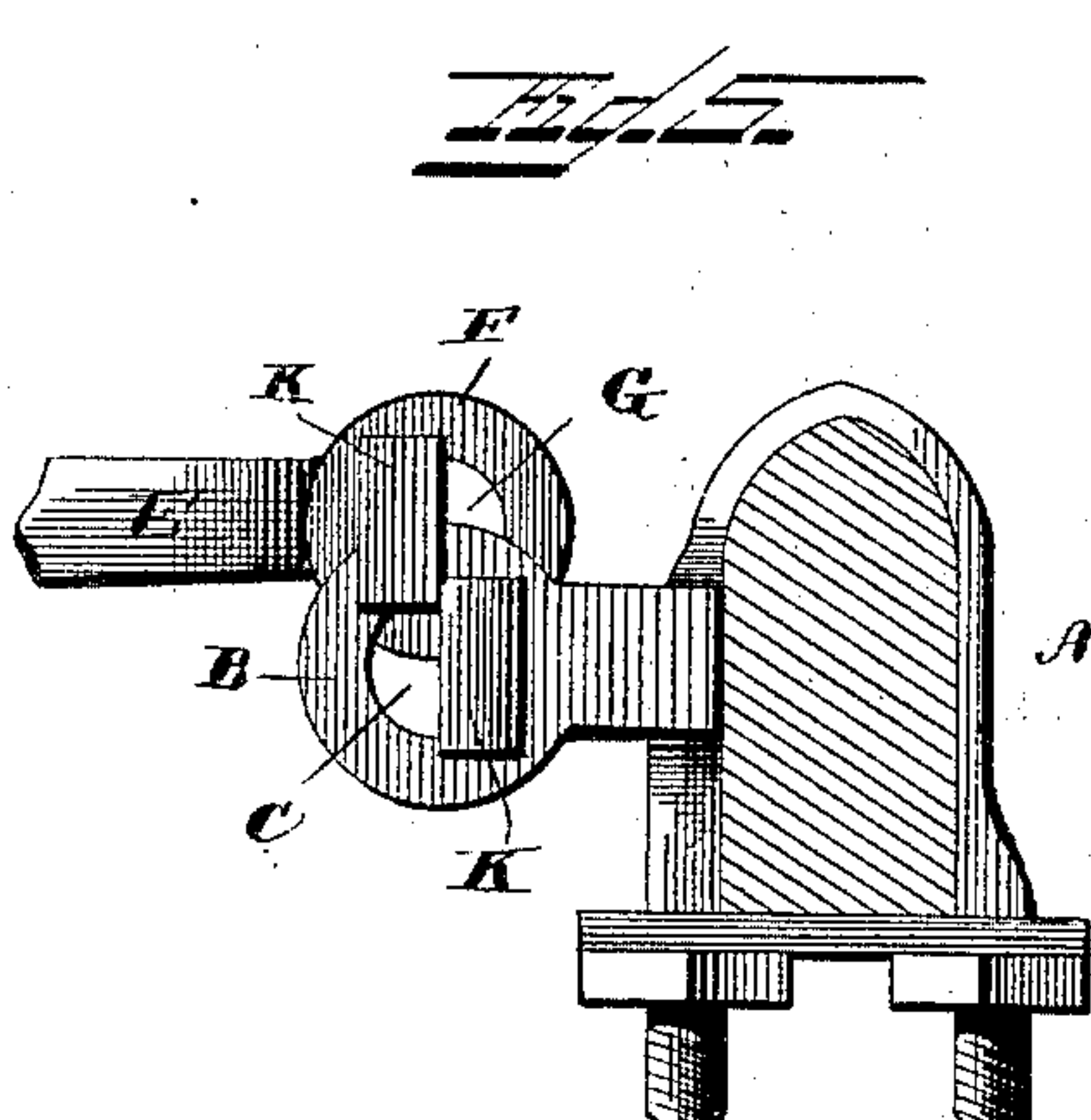
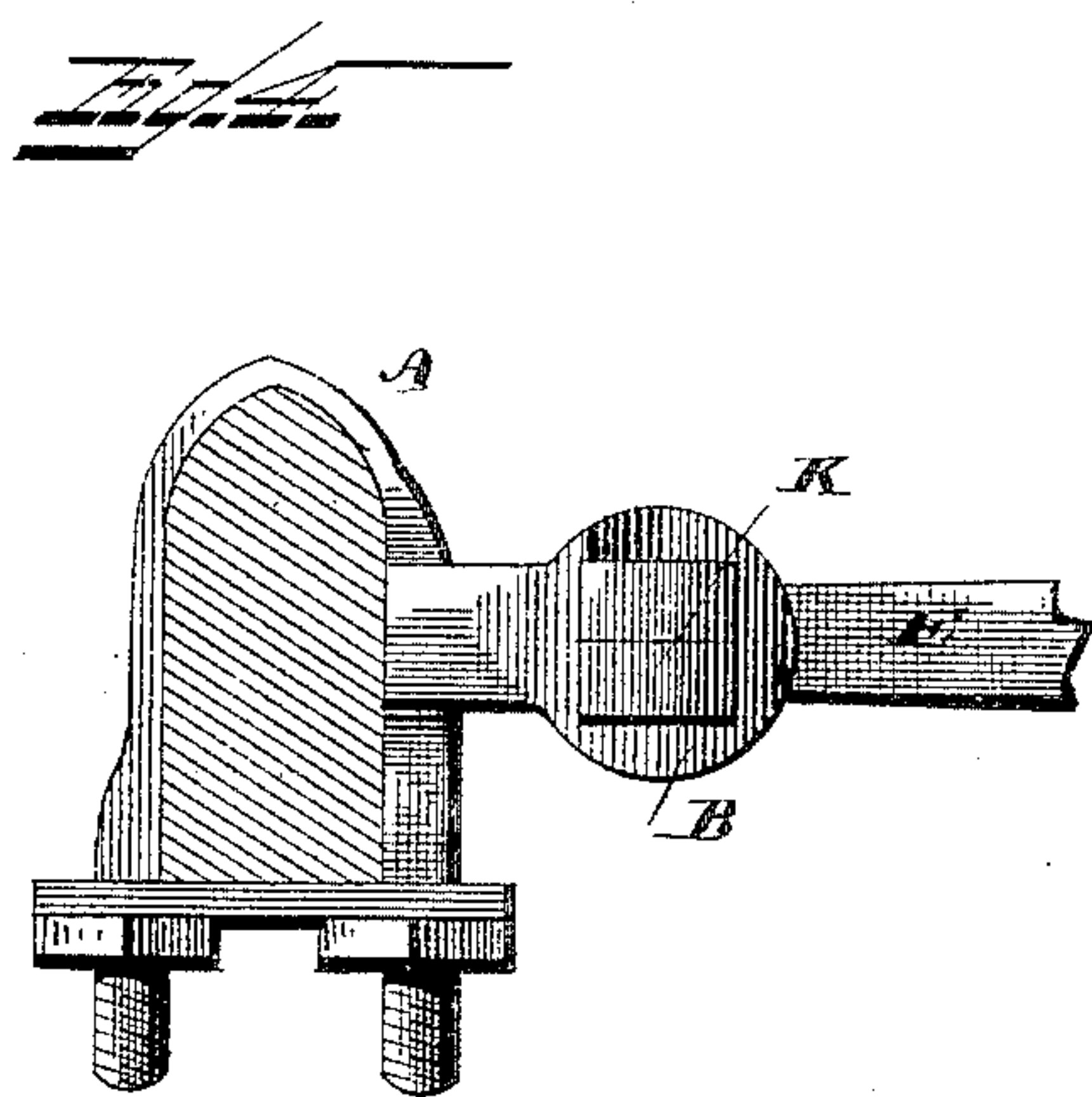
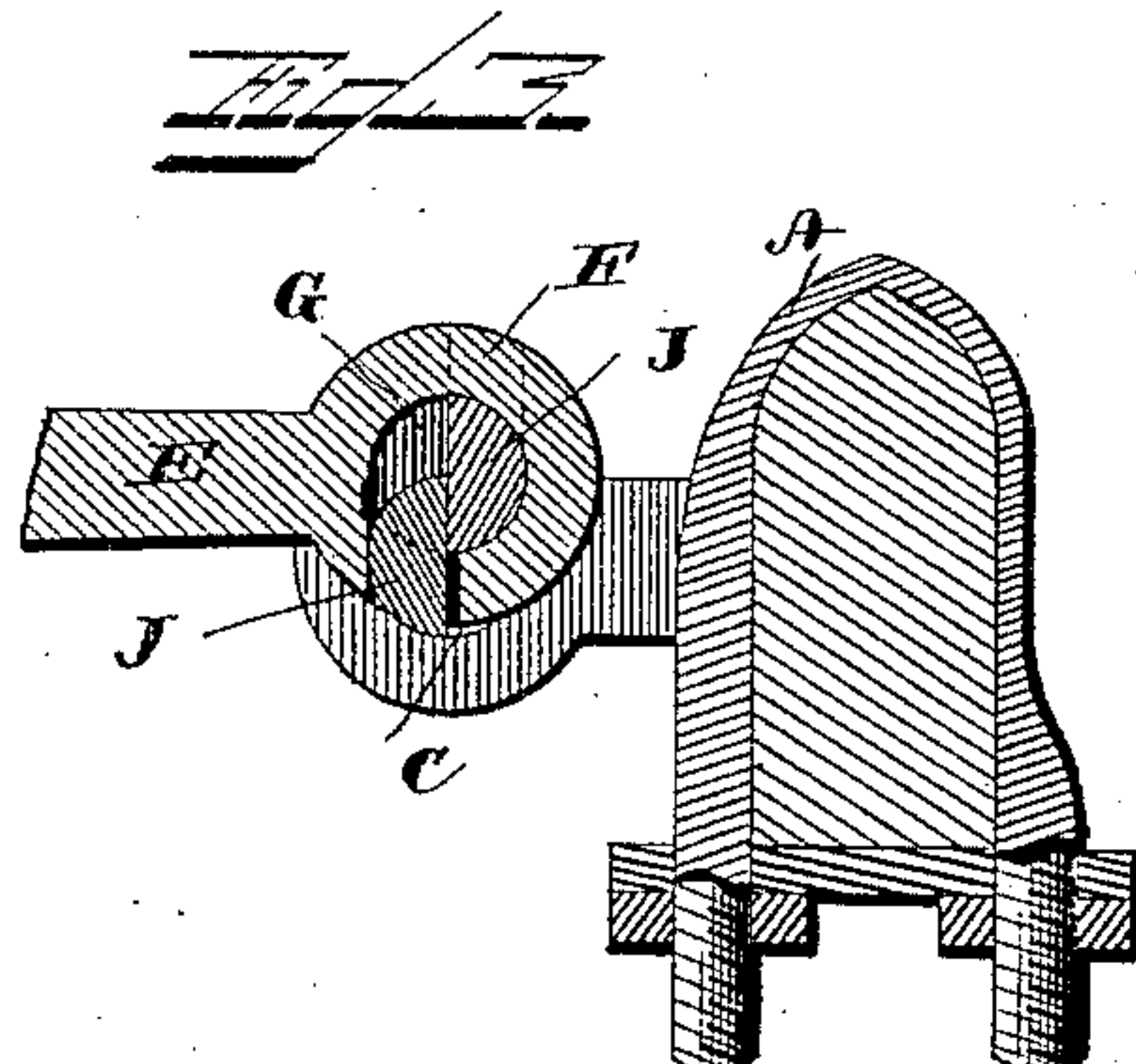
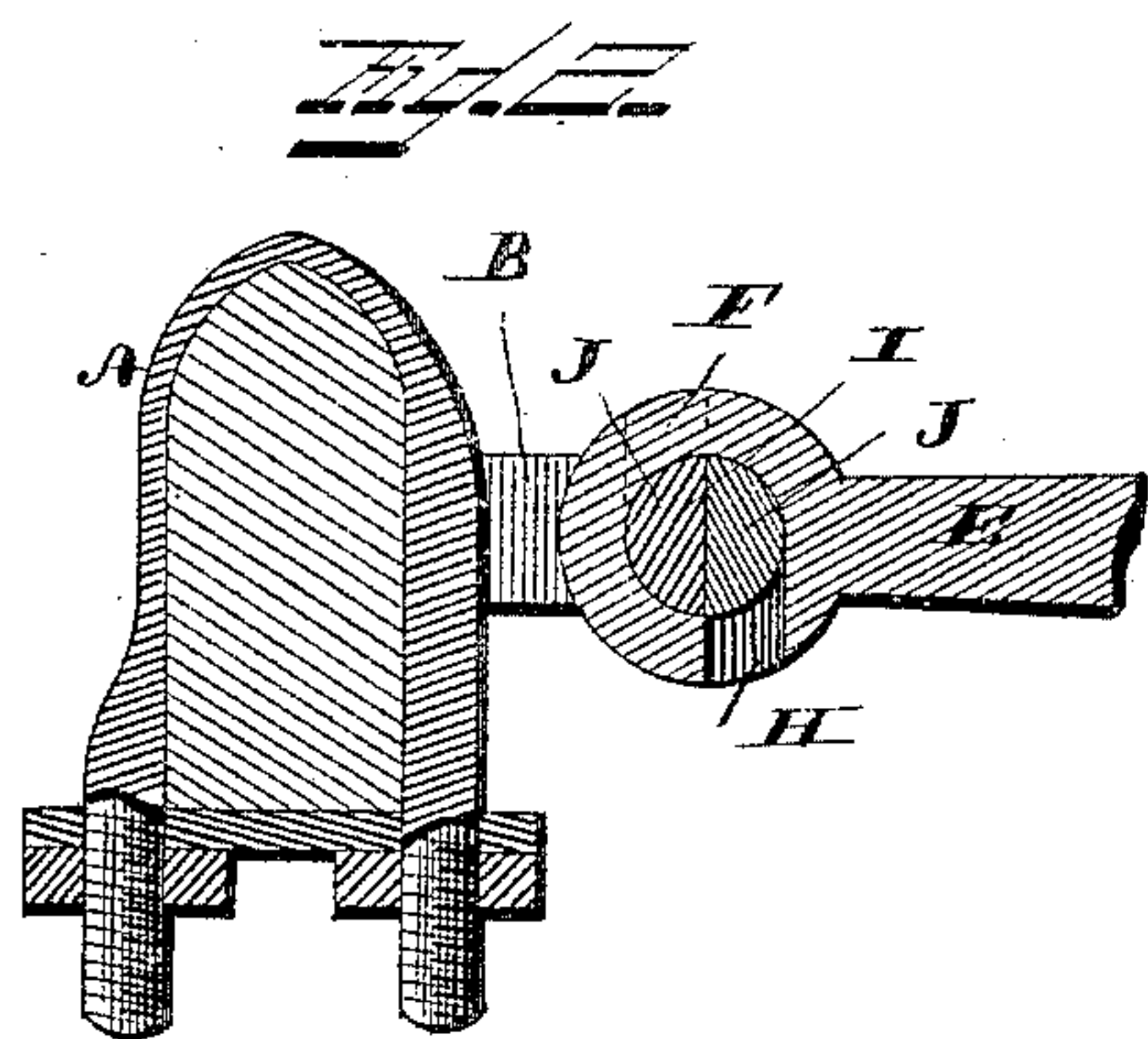
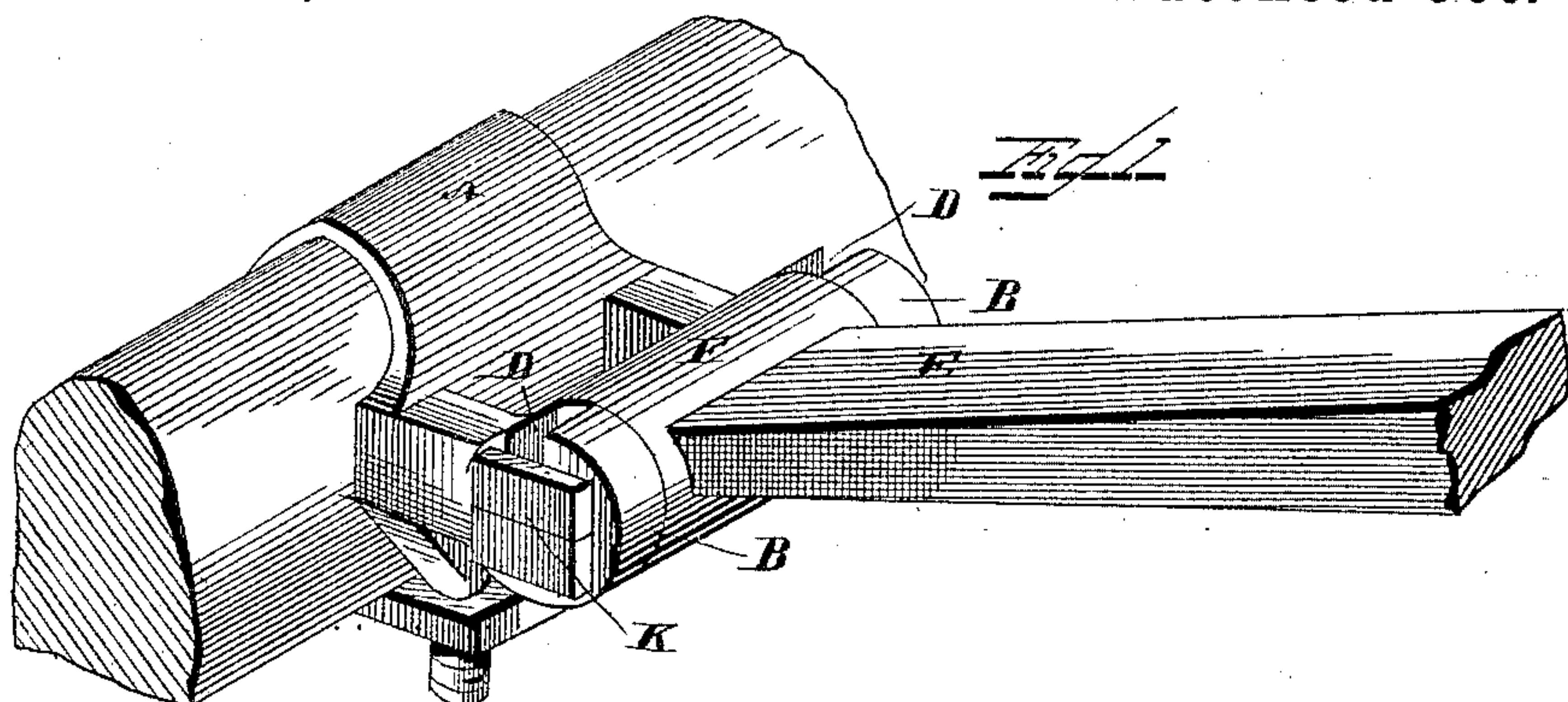
(No Model.)

J. A. KNEEDLER.

THILL COUPLING.

No. 327,884.

Patented Oct. 6, 1885.



WITNESSES  
H. L. Ourand  
Arthur E. Clifford

INVENTOR  
John A. Kneeder  
by Louis Baggett Co.  
Attorneys.



# UNITED STATES PATENT OFFICE.

JOHN A. KNEEDLER, OF GRANT, PENNSYLVANIA.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 327,884, dated October 6, 1885.

Application filed August 6, 1885. Serial No. 173,762. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN A. KNEEDLER, a citizen of the United States, and a resident of Grant, in the county of Indiana and State of Pennsylvania, have invented certain new and useful Improvements in Thill-Couplings; 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 5 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 perspective view of my improved thill-coupling. Fig. 2 is a vertical section of the same. Fig. 3 is a similar view showing it when being separated; and Figs. 4 and 5 are side views, one showing the coupling closed and the other in the act of being 15 separated.

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

My invention has relation to thill-couplings, or any similar couplings in which a wide eye 25 is pivoted upon a bolt between two eyes or perforated lips; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the clip, which is secured to the axle, and which is provided upon its front side with two forwardly-projecting lips, B B, having transverse perforations C. The upper edges 35 of these eyes or lips have slots D, opening into the perforations, and opening into the rear halves of the same.

E is the thill-iron, which is formed upon its inner end with a wide eye, F, having a transverse perforation, G, which has a transverse slot, H, upon its under side, opening into the forward half of the bore or perforation. The eye of the thill-iron is pivoted upon a bolt, I, passing through the bore of the eye and through 45 the perforations in the lips upon the clip; and the said bolt consists of two halves, being split longitudinally to form two portions, J J, the ends of which are provided with flat heads or flanges K, which bear against the outer sides 50 of the perforated lips upon the clip. The slots opening into the perforations of the lips upon the clip and into the perforation in the thill-

eye are of a width equal to the thickness of each one-half of the bolt, so that one half may be slipped in through the slot at the time; and 55 it will be seen that by placing the thill-iron in such a position with reference to the lips upon the clips that the slots in the said lips are diametrically opposite to the slot in the thill-eye one half of the bolt may be placed in 60 position in the thill-eye, filling the rear half of the same, and having the lower edge of its flat side flush with the rear edge of the slot in the eye. The other half of the bolt may be placed in the perforations of the lips, filling 65 the forward halves of the perforations, and having the lower edge of its flat side flush with the forward edges of the slots, when the ends of the half of the bolt in the thill-eye may be inserted through the slots of the per- 70 forated lips, while the middle of the other half-bolt will enter the unoccupied half of the thill-eye through its slot, allowing the parts of the coupling to be united and to turn upon the bolt. 75

After the parts have been united and are in their proper positions the bolt may be turned so as to prevent the halves from working out through the slots, and the slots in the lips and in the thill-eye are located in such a manner 80 that the ends of the thills must rest upon the ground to bring the slots diametrically opposite to each other.

It follows that although this coupling is principally intended for a thill-coupling, it may 85 be used in a pitman-coupling, in a common hinge, or in any other coupling where a wide eye is pivoted between two perforated lips, the coupling being very simple of construction, easy to manipulate, and sufficiently simple to 90 be strong and durable and not liable to get out of order or break.

When the coupling is made accurately, so that the slots just will allow one half of the bolt to pass into them, the coupling will be 95 very safe from becoming uncoupled, inasmuch as the halves will have to register exactly with the slots, and the slots will have to be exactly diametrically opposite to each other, which will not very probably happen if the coupling or 100 joint is moved considerably, and if the coupling is not moved the bolt will not be liable to work itself around into the exact position.

If desired, one half-bolt may be integral



with the forward part of the perforated lips of the clip.

The uncoupling of the parts of the coupling is performed in exactly the opposite order of the coupling of the parts, the slots being placed diametrically opposite to each other, the bolt turned to bring its halves in their proper positions, when the eye may be raised from the perforated lips.

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

1. The combination of a wide eye, having a slot opening into one half of the bore of the eye, lips having slots opening into one half of their bores, and a bolt composed of two halves fitting in the bore of the eye and the perforations of the lips, as and for the purpose shown and set forth.

20 2. In a thill-coupling, the combination of the

clip having two forwardly-projecting perforated lips having slots opening from above into the rear halves of the perforations, the thill-iron having the wide eye at its inner end having a transverse slot opening into the forward half of the bore of the eye, and a bolt consisting of two halves fitting in the perforations of the lips and eye, having heads or flanges at the ends bearing against the outer sides of the lips, each half of the bolt being of the same thickness as the width of the slots in the lips and eye, as and for the purpose shown and set forth.

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

JOHN A. KNEEDLER.

Witnesses:

H. H. JACOBS,

J. C. MILLER.