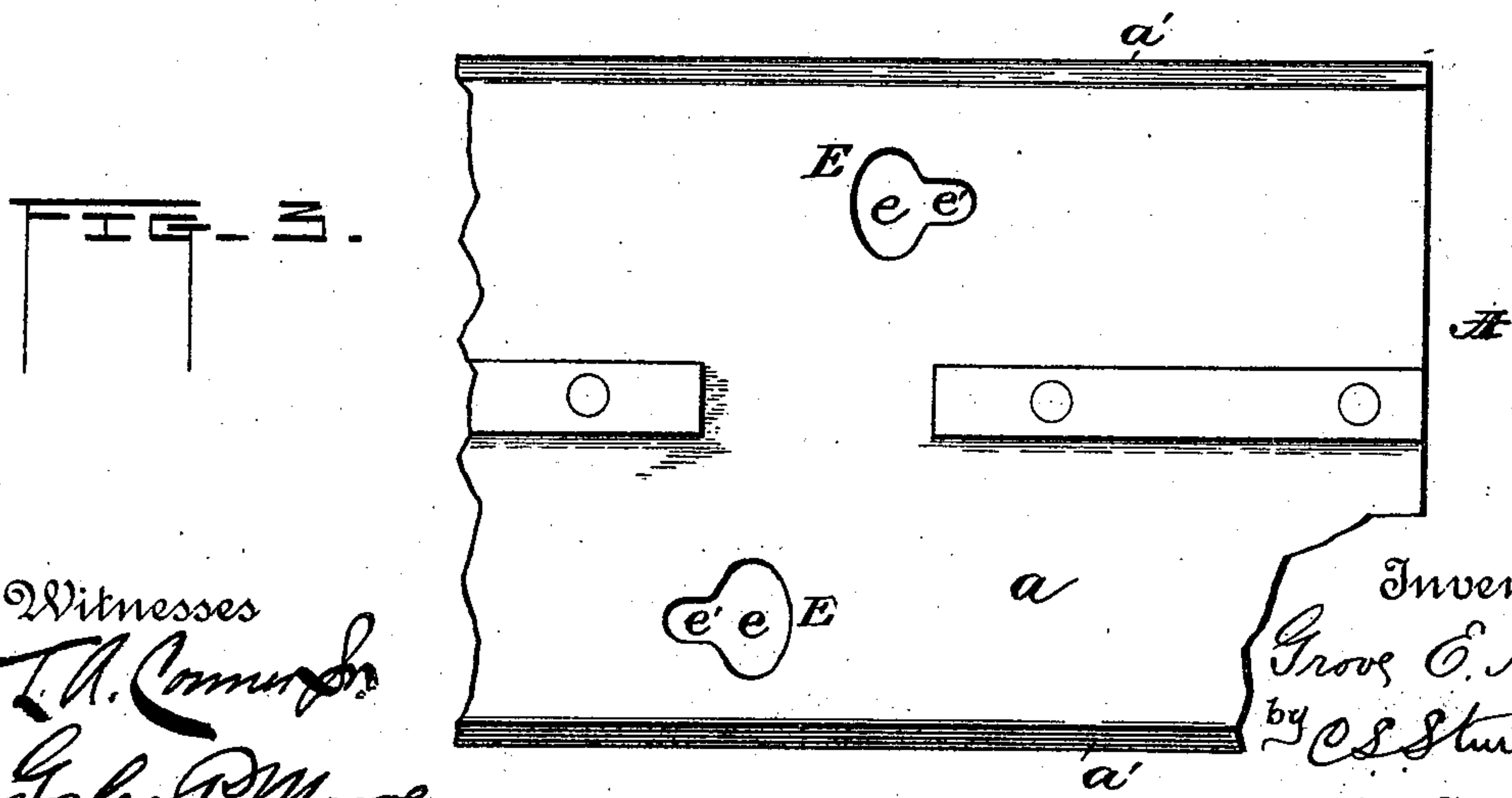
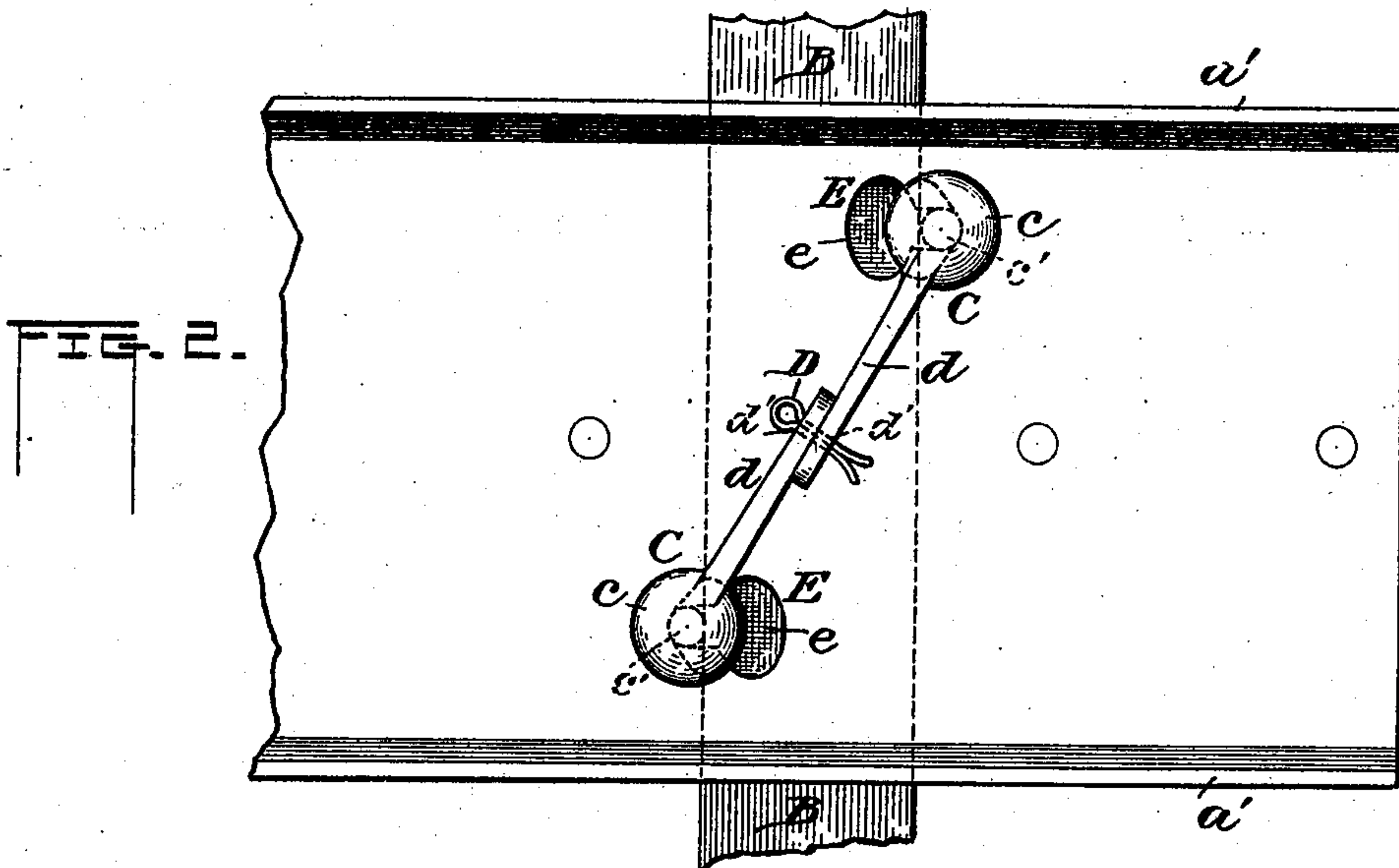
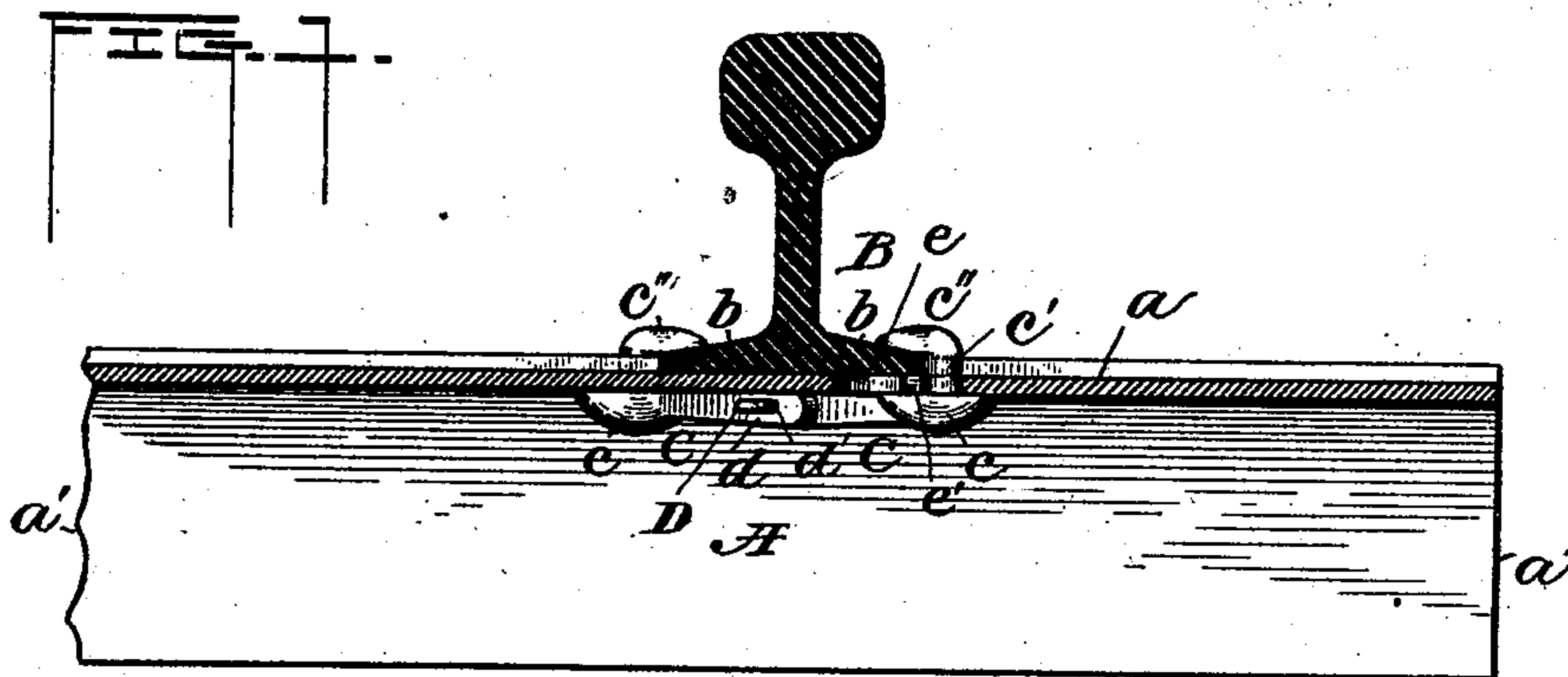


(No Model.)

G. E. NORTON.
TRACK FASTENING.

No. 504,236.

Patented Aug. 29, 1893.



Witnesses
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Gales P. Moore.

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UNITED STATES PATENT OFFICE.

GROVE E. NORTON, OF SALT LAKE CITY, UTAH TERRITORY.

TRACK-FASTENING.

SPECIFICATION forming part of Letters Patent No. 504,236, dated August 29, 1893.

Application filed September 3, 1892. Serial No. 444,943. (No model.)

To all whom it may concern:

Be it known that I, GROVE E. NORTON, a citizen of the United States, residing at Salt Lake City, Salt Lake county, Utah Territory, have invented a certain new and useful Improvement in Track-Fastenings; 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 which it appertains to make and use the same.

My invention relates to track fastenings and particularly to that class used for securing rails upon their ties.

It consists in the various matters hereinafter described and referred to in the appended claims, my object being to provide a means for securing tracks to ties which means shall be extremely simple and at the same time hold the rail securely in place.

In the accompanying drawings, which illustrate my invention Figure 1 is a sectional elevation of a track and tie provided with my fastening. Fig. 2 is a bottom view of the same; and Fig. 3 is a view of the tie showing the openings for the dogs, the rails being removed.

In the drawings, A is the tie which is, as here shown, preferably of metal, *a* representing the top plate upon which the rail rests and *a'* the downwardly projecting shoulders.

B is the rail provided with the usual base-flanges *b*, *b*. Instead of securing the rail to the tie by the usual spikes or bolts, I employ clamps or dogs C which are each composed of a plate *c* from which extends laterally an arm *d*. Projecting from the center of the plate *c* is a cylindrical shank *c'* of a length equal to the width of the material from which the tie is made and of a diameter less than that of the plate *c*. Upon the upper end of this shank *c'* is a head *c''* extending upon one side only. A hole *d'* is provided near the end of the arm *d*. Formed in the tie along each side of the line of the rail are openings E composed as shown in Fig. 3 of the two parts *e*, *e'*, and adapted to receive the clamps C.

The application of my invention is as follows: The head *c''* of each clamp C is passed through the part *e* of one of the openings E

until the lower plate *c* bears against the under side of the tie when the clamp is slipped back in order that the shank will fit in the smaller opening *e'*, and is then turned to bring the projecting side of the head *c''* toward the end of the tie. The openings E being so placed that when the clamps are in the position above described the inner points of the shanks *c'* and of the heads *c''* will lie along either side of the line of the rail, the rail is now placed in position and the arms *d* are turned toward each other and the center of the rail and, when they meet, are secured together by means of the split key D, the heads *c''*, when the clamps are thus secured, bearing against the upper side of the base-flanges *b*, thus securely holding the rail upon the tie.

I am aware that it is old to fasten rails to ties by clamps very similar to mine, these clamps being secured in position by wedges driven between their arms and the under surface of the tie, thus necessitating the transportation of bars of metal to be used as wedges as well as making it necessary to hold the clamps in position while the wedges are being driven home so that the blows upon the wedge will not force the clamps out of place. It is also possible for the continued jarring caused by the passage of the train to loosen the wedges and allow the arms to swing out of position, thus removing the support for the rails. By the use of my split key passing through the holes in the arms and then spread in the well known manner, it becomes impossible for the clamps to be displaced as each of a pair of arms serves to lock the other, while the sides of the split metallic key can only be pressed together by the use of considerable force exerted directly upon them.

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

1. In combination with a railway tie and the rail thereon, clamps or dogs passing through openings in the top of the tie, said clamps having their upper ends hooked to engage the flanges of the rail and having their lower ends passing beneath the top of the tie, said lower

ends being provided with holes, and a locking member passing through said holes; substantially as described.

2. In combination with a railway tie and the
5 rail thereon, clamps or dogs passing through openings in the top of the tie, said clamps having their upper ends hooked to engage the flanges of the rail and having their lower ends

passing beneath the top of the tie, said lower ends being provided with holes, and a split 10 key passing through said holes; substantially as described.

GROVE E. NORTON.

Witnesses:

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