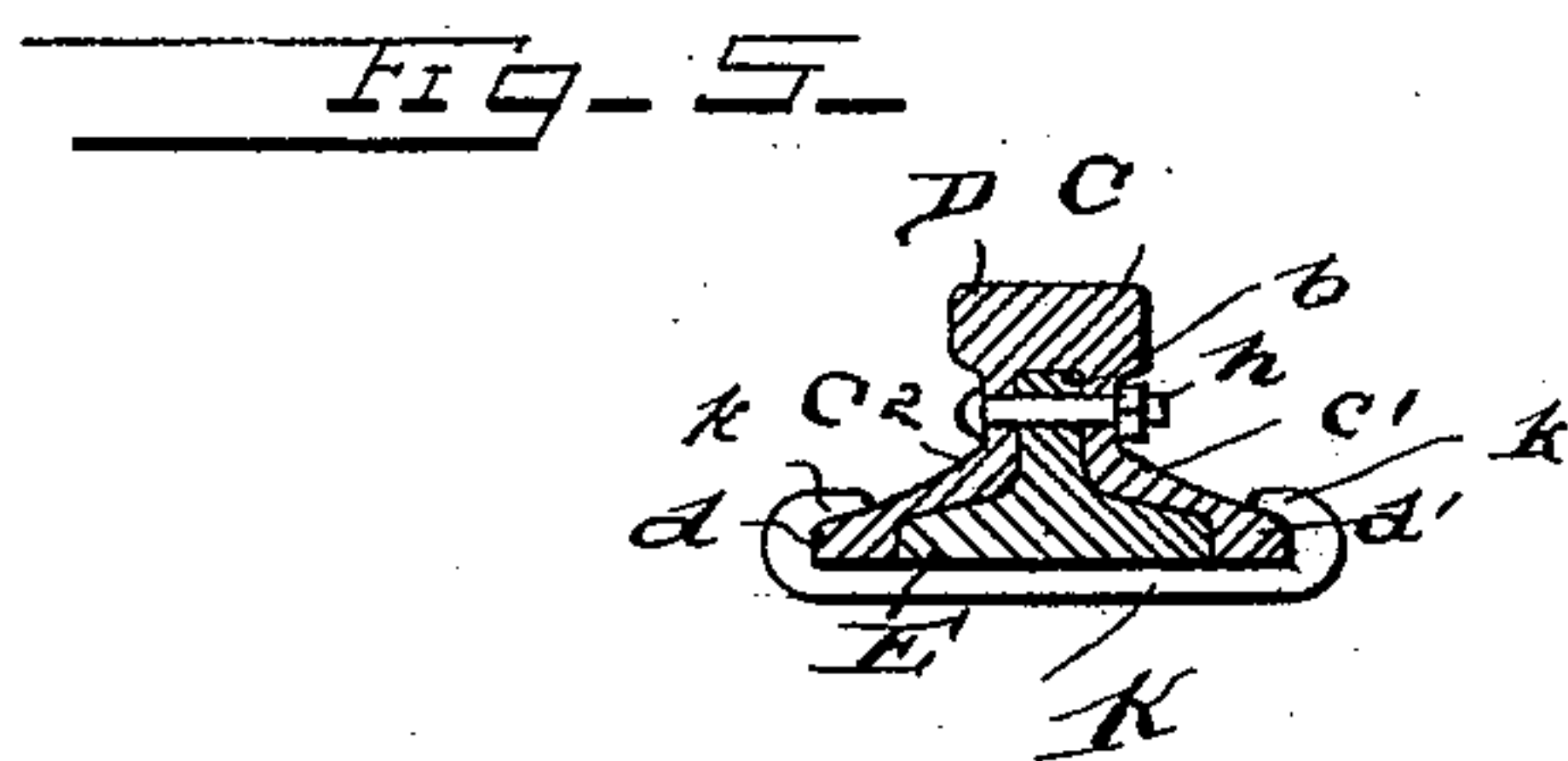
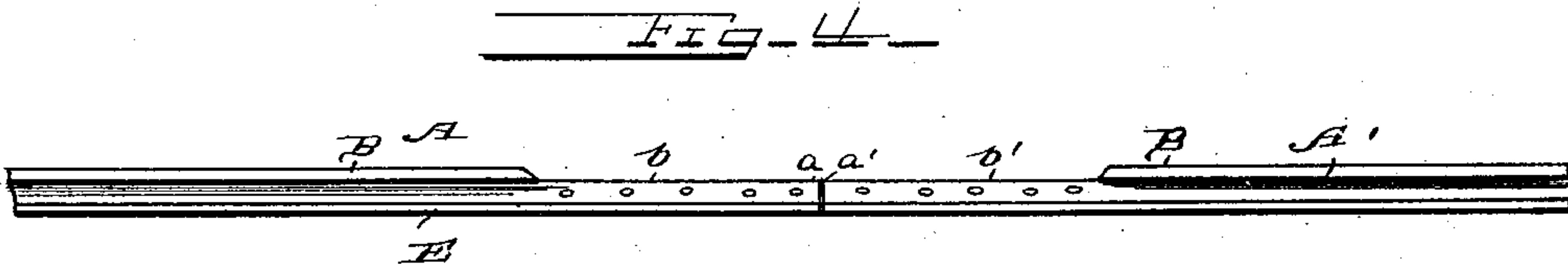
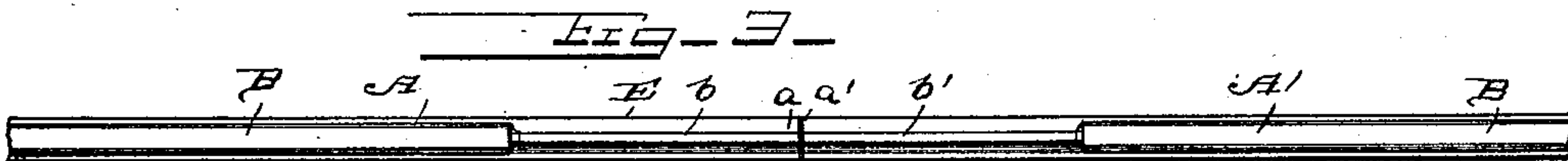
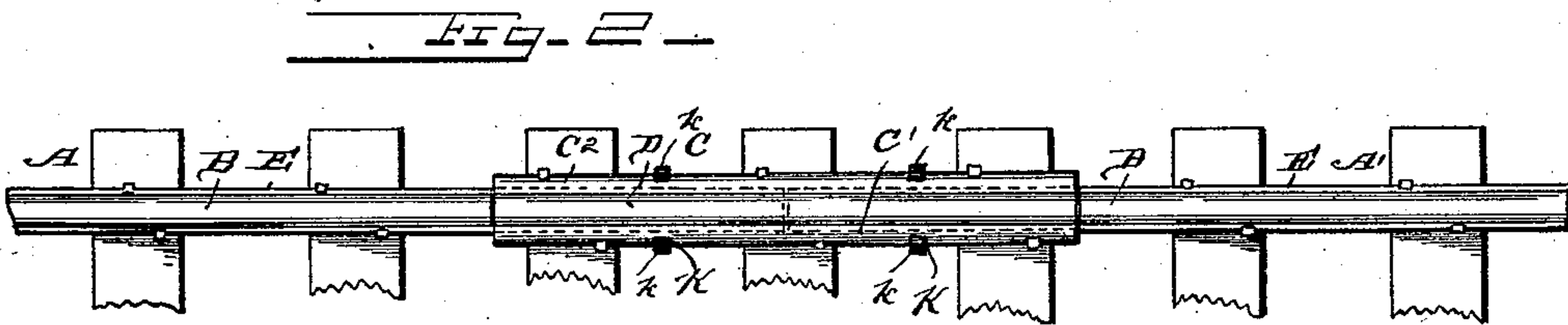
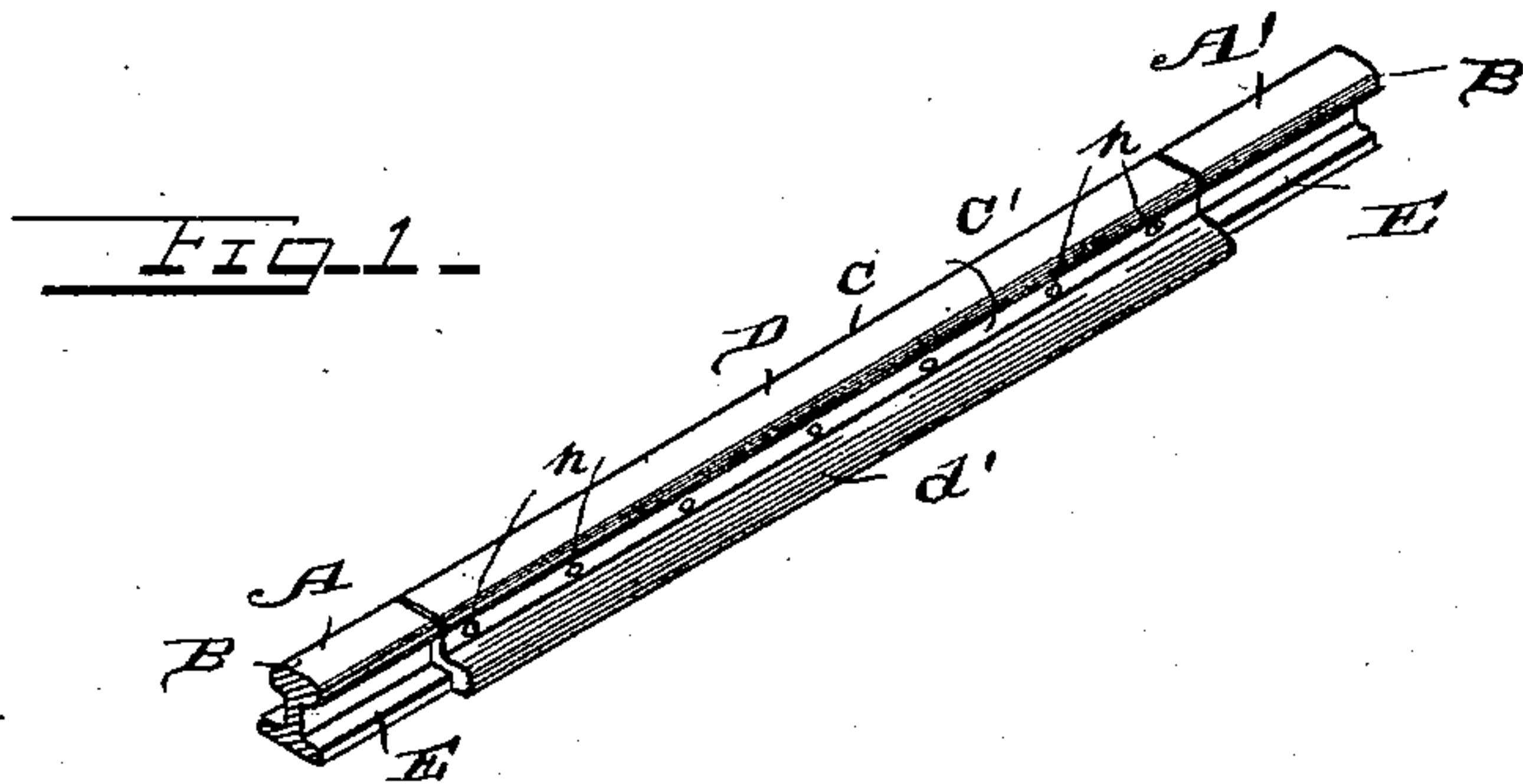


(No Model.)

W. QUINN & J. S. BERRY.
RAILROAD SPLICE.

No. 494,083.

Patented Mar. 21, 1893.



Witnesses:
Jesse Heller.
Phil. C. Mass.

Inventors:
William Quinn.
John S. Berry
by E. W. Anderson
Attorney:

UNITED STATES PATENT OFFICE.

WILLIAM QUINN AND JOHN S. BERRY, OF TYLER, TEXAS.

RAILROAD-SPLICE.

SPECIFICATION forming part of Letters Patent No. 494,083, dated March 21, 1893.

Application filed June 30, 1892. Serial No. 438,567. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM QUINN and JOHN S. BERRY, citizens of the United States, and residents of Tyler, in the county of Smith and State of Texas, have invented certain new and useful Improvements in Railroad-Splices; and we do 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a perspective view of rail with clamp or joint plate. Fig. 2 is a top plan of same. Fig. 3 is a top view showing the cut-away portions. Fig. 4 is a side view of same and Fig. 5 is a cross section of rail and clamp.

This invention relates to certain improvements in railway rail joints, and it consists in the novel construction and combination of parts as hereinafter specified.

In the accompanying drawings, the letters A, A', designate two rail sections, having the adjoining end portions *a, a'*. The top flange or bearing surface B of these rails at the end portions *a, a'*, are cut away to the neck portion as shown at *b, b'*.

C represents the clamp or joint plate which I employ instead of the ordinary fish plate. This plate C consists of the two side portions C', C² fitting the neck portion of the rail at either side and united by the top piece D, which forms the bearing surface for the car wheel, being adapted to fit in the cut away portions *b, b'* of the rail sections, and having its upper surface flush with the bearing surfaces of said rails. The side portions C', C² are extended downwardly and outwardly as shown at *d, d'*, fitting around and inclosing the bottom flanges E of the rails, the under surfaces of these downward and outward extended portions being cut away or recessed for this purpose. Bolts *h* pass through perforations in the side portions of the side plate, and through the neck portion of the rails. By means of this joint a continuous rail is formed

doing away with the ordinary fish plate joints. In case the bolts become broken the rails cannot get out of place, as the joint plate forms a part of the rails and is as strong and durable as the rails themselves. It will also be seen that provision is made for the expansion and contraction of the rail sections in the recess or space between the two side plate portions C', C², and also by reason of the oblique bolt holes in the side plates.

In practice I prefer to make the clamp plates of sufficient length to cover three ties, but they may be of any suitable length. These plates may be made to fit any rail and are bolted or otherwise secured to the ties. With this form of joint, it is impossible for dirt to get in between the rails to stop the expansion. After the joint plate is put in place, spikes cannot be driven in between the ends of the rails for the purpose of derailing the train.

In order to render the joint more secure, we prefer to use the bottom clamps K, one of which should be placed between each pair of ties at the joint. These clamps consist each of a bar upon which the under surface of the rail rests the ends of the bar being turned up over the joint plates, as indicated at *k, k*, to form the clamps.

By our construction and arrangement we provide a continuous joint which covers a plurality of the cross-ties, preferably three, and the base flanges of the joint plate C rest upon the bearing surfaces of several ties for the purpose of keeping the weight entirely off the ends of the rails A, A'. The clamps K extending under the rails and lapping over the base flanges of the joint-plate C, effectually prevent spreading in case of derailment and if the joint bolts were cut off by the flanges of the car-wheels, the clamps K, would retain the rails in position.

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

The combination of the cross-ties, the rails A, A', having the top flanges of their end portions cut away, the joint plate C fitting round the cut away portions to form a bearing surface for the car wheels and having the oppo-

site sides C', C² extending over the bottom
flanges of the rails, lying flush with the lower
sides of said bottom flanges and resting upon
a plurality of the cross-ties, the bolts *h* pass-
5 ing through the joint-plate and the cut-away
parts of the rails, and the clamps K extend-
ing under the rails between the cross-ties and
having their opposite ends turned upward and
overlapping the side portions of the joint-

plate beneath the connecting bolts, substan- 10
tially as described.

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

WILLIAM QUINN.
JOHN S. BERRY.

Witnesses:

JEFF D. BURNS,
S. E. FLECK.