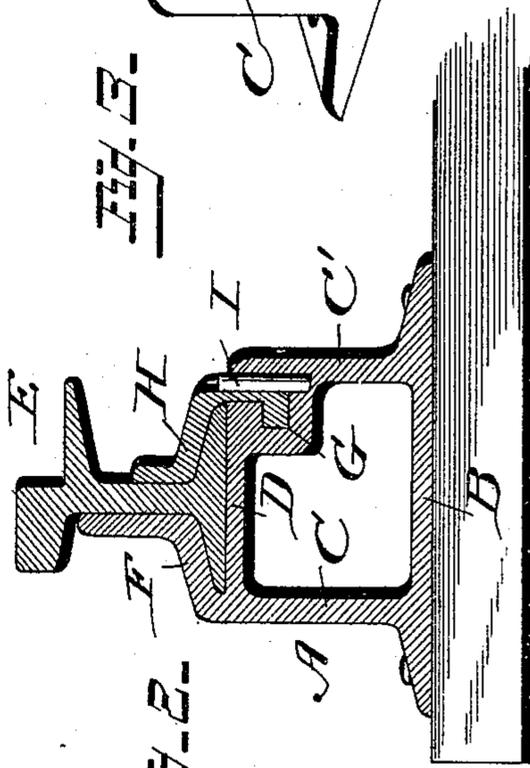
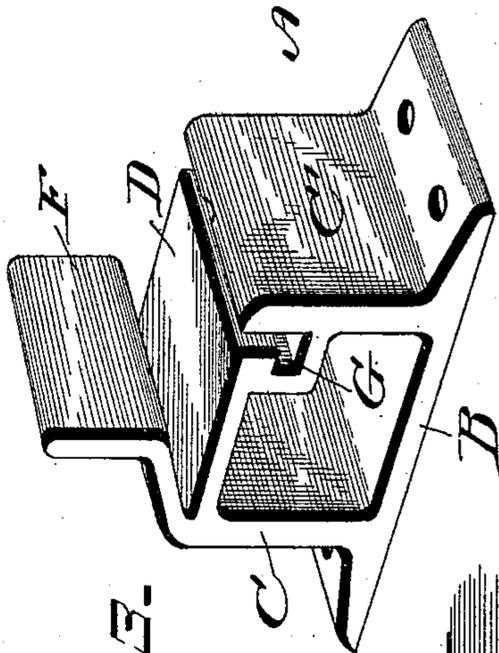
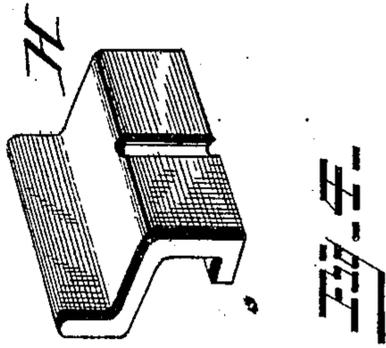
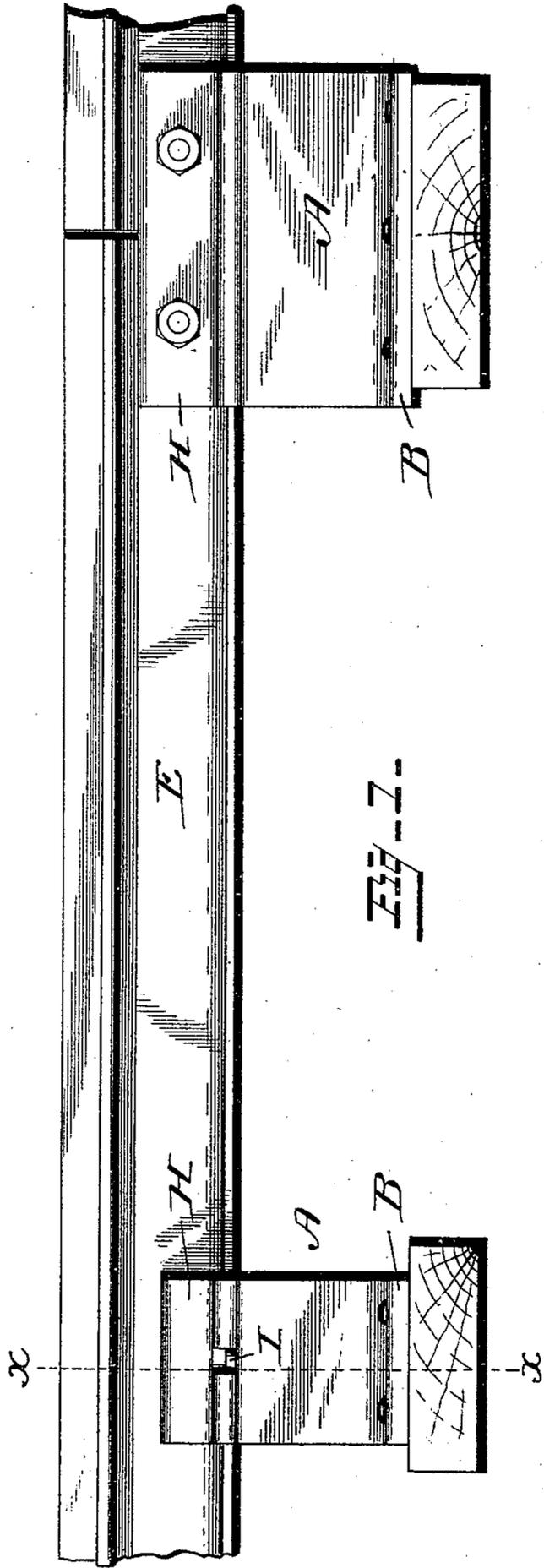


(No Model.)

G. H. GRAHAM.  
RAILWAY RAIL CHAIR.

No. 471,971.

Patented Mar. 29, 1892.



Witnesses

*Albert Spiden*  
*Van Buren Hillyard*

Inventor

*George H. Graham*

By his Attorney

*R. A. Lacey*

# UNITED STATES PATENT OFFICE.

GEORGE H. GRAHAM, OF RIDGELAND, ILLINOIS.

## RAILWAY-RAIL CHAIR.

SPECIFICATION forming part of Letters Patent No. 471,971, dated March 29, 1892.

Application filed October 30, 1891. Serial No. 410,335. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE H. GRAHAM, a citizen of the United States, residing at Ridgeland, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railway-Rail Chairs; and I 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.

This invention relates to chairs for railway-rails, and has for its object to secure a firm bearing on the tie or sleeper, thereby preventing the spreading of the rails; also, to secure a firm fastening for the rails and provide a minimum number of parts.

The improvement consists of the novel features and the peculiar construction and combination of the parts, which will be hereinafter more fully described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a side elevation of the meeting ends of two rails, showing the application of the invention thereto, one of the chairs being at the joint and the other at a distance from the said joint. Fig. 2 is a cross-section about on the line X X of Fig. 1. Fig. 3 is a perspective view of the chair, the fastening-slide being detached. Fig. 4 is a perspective view of the fastening-slide detached.

The base of the chair A is hollow and is composed of the base-plate B, having spike-openings along each edge, the side pieces C and C', projected vertically from the base-plate B, the top plate D, extending between the upper end of the side pieces C and C' and forming the rest for the rail E to obtain a purchase upon, and the clamping-extension F, which overlaps one side of the foot of the rail E and extends up alongside the web of the rail and terminates at a point immediately below the head of the said rail. The angle formed between the top plate D and the side C' is filled in, the said filling being provided with a reverse L-groove G, which is adapted to receive the lower edge of the locking-slide H, which is correspondingly constructed to enter the said groove G and interlock therewith. The upper portion of the locking-slide H is constructed similar to the

upper portion of the clamping-extension F, overlapping the foot of the rail on one side and extending up alongside of the web of the rail, as most clearly shown in Fig. 2. 55

The chairs will be constructed single and double, the single chair being designed to be used at points intermediate the joints of the rail and the double chairs being adapted to be used at the joints formed between the meeting ends of two rails only. The locking-slides H for the single chairs will be constructed to have a wedging action, thereby clamping the rail securely, and will be held in place by any suitable fastening devices— for instance, by means of the locking-pins I, which are placed in a vertical opening that is formed part way in the locking-slide H and the opposing portion of the rail-chairs. The locking-slide of the double chair will have the portion parallel with the web of the rail bolted through the web of the rail to the vertical portion of the clamping-extension F. 60 65 70

It will be seen that the double chair constructed as hereinbefore set forth obviates the use of a fish-plate at the rail-joint; also, that no other fastenings are necessary to hold the locking-slide in place other than the bolts which secure the said chair to the rails. 75

In practice the chairs are fastened to the sleepers or cross-ties by spikes in the usual manner and the rails are placed on the top thereof and secured in place by driving the locking-slide H endwise into the groove G, the said slide being fastened as hereinbefore set forth. 80 85

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

1. A rail-chair comprising a horizontal plate D, having a vertical clamping-extension F at one side and having an approximately L-groove G formed therein near the opposite side and extending below the face of the said plate, and the locking-slide H, having its upper portion similarly constructed to the extension F and having its lower portion conformed to the groove G, into which the said slide is to be driven endwise and secured, substantially as described. 90 95 100

2. A hollow rail-chair composed of the base-plate B, the side pieces C and C', projected

from the base-plate B, the top plate D, extending between the upper ends of the side pieces C and C' and having a reverse L-groove formed in the angle between the said top plate and one of the sides, the clamping-extension 5 F, and the locking-slide H, constructed to be driven endwise into the said groove G and interlock therewith, and a fastening to secure

the said locking-slide in position, substantially as set forth. 10

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE H. GRAHAM.

Witnesses:

MARSHALL WAIT,  
THOMAS GANNANE.