

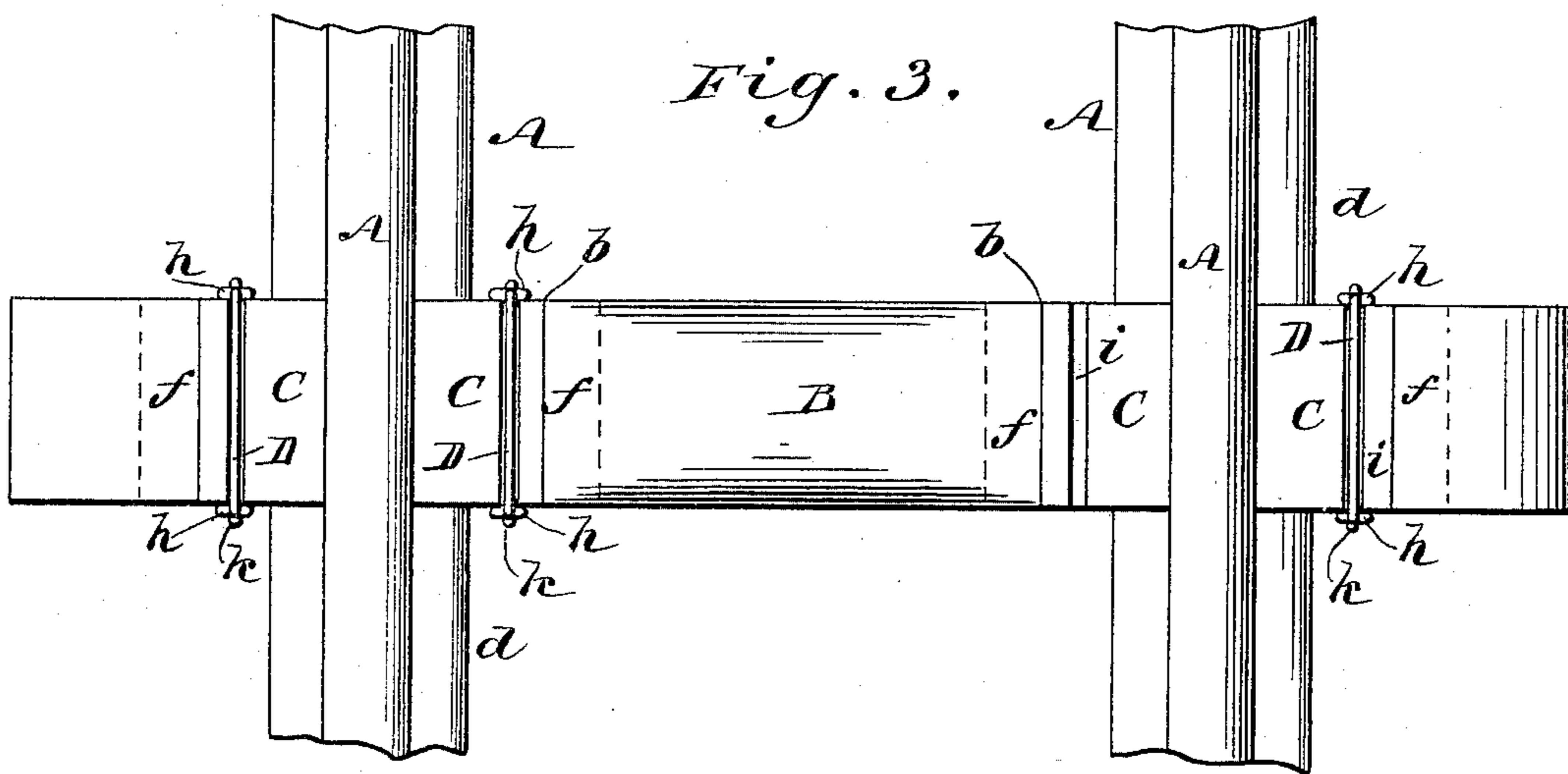
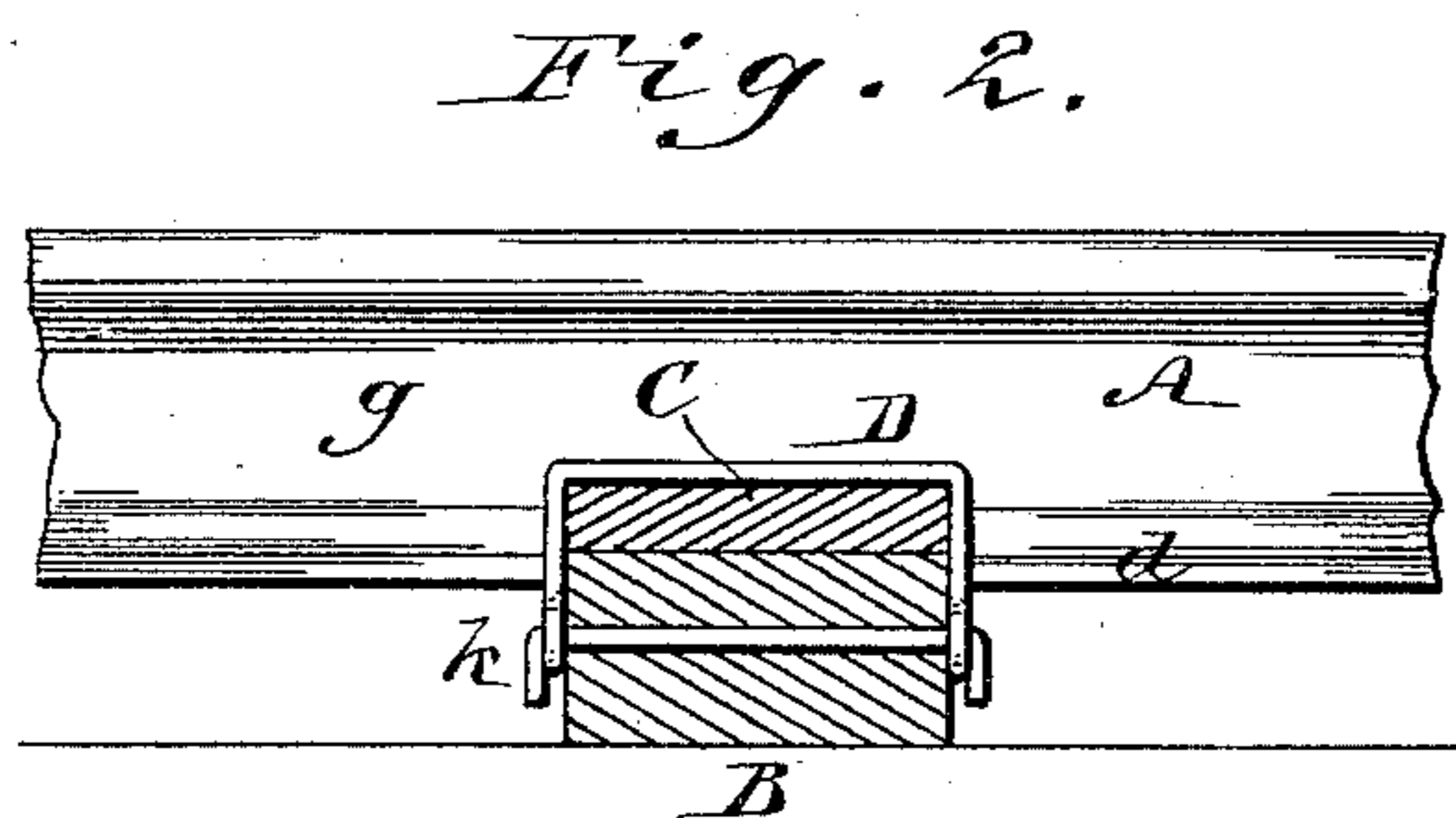
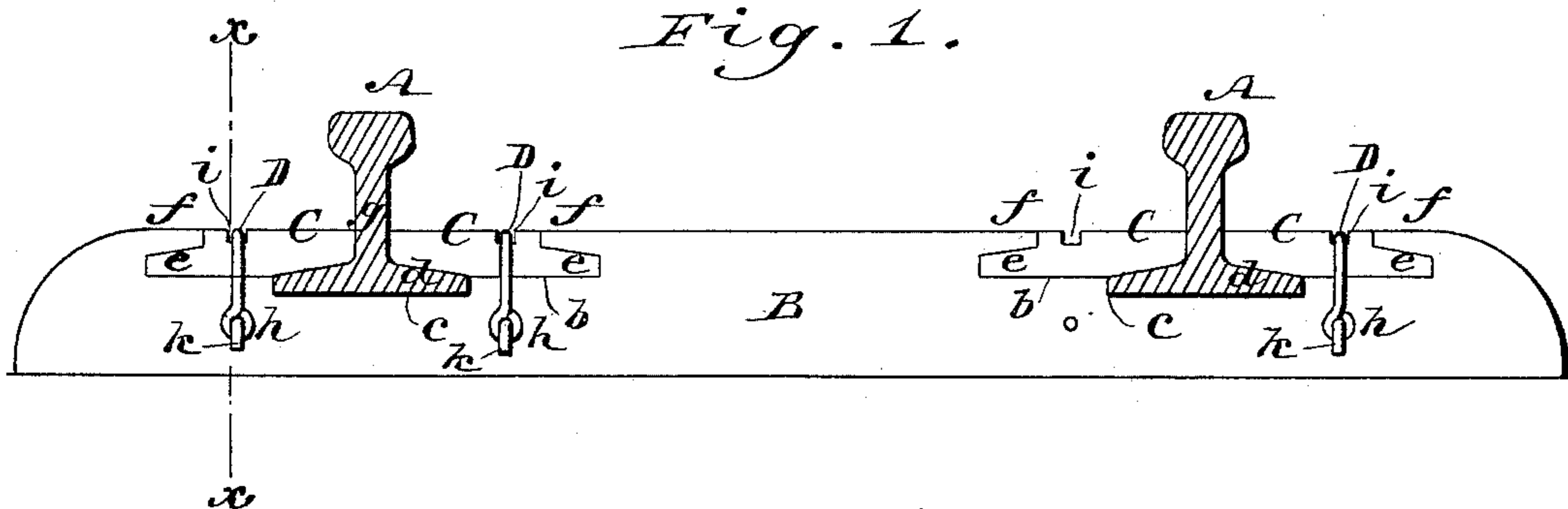
(No Model.)

I. G. HOWELL.

RAILROAD TIE.

No. 390,370.

Patented Oct. 2, 1888.



WITNESSES:

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ISRAEL G. HOWELL, OF HOPEWELL, NEW JERSEY.

RAILROAD-TIE.

SPECIFICATION forming part of Letters Patent No. 390,370, dated October 2, 1888.

Application filed June 8, 1888. Serial No. 276,453. (No model.)

To all whom it may concern:

Be it known that I, ISRAEL G. HOWELL, of Hopewell, in the county of Mercer and State of New Jersey, have invented a new and useful Improvement in Railroad-Ties, of which the following is a full, clear, and exact description.

This invention relates to railroad-ties which are made of metal and are recessed near their ends to receive the flange, foot part, or base portions of the rails within them, also to receive locking blocks or keys made to hold the rails both sidewise and downward to their places, alike for the purpose of giving increased durability to the ties apart from their fire-proof character, as well as to secure greater stability to the permanent way and to preserve the proper gage or distance of the parallel rails of a track apart, together with increased facility for taking up or replacing the rails as required and dispensing with independent chairs.

My invention, which is an improvement upon this description of railway-ties and the means used in connection therewith to hold the rails to their places in the ties, consists in certain novel constructions and combinations of parts, substantially as hereinafter described, and pointed out in the claims, and whereby the objects sought to be obtained as above are very perfectly secured.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a longitudinal side view of a railroad-tie with the two rails of a track in transverse section and fastenings applied to hold said rails in place, all in accordance with my invention. Fig. 2 is a vertical transverse section upon the line *x x* in Fig. 1, and Fig. 3 is a plan or top view.

A A indicate the rails of a railway-track, and B one of the ties. These ties are made of either iron or steel, and are constructed near both of their ends each with a main recess, *b*,

across their upper faces, and with a sub-recess, *c*, in and centrally across the bottom of the main recess. The last-named recesses, *c*, are of a corresponding width and depth with the flange, foot, or base portions *d* of the rails, so as to receive said foot portions snugly within them, and whereby the rails are largely supported independently of or in addition to the support given to them by locking wedges or blocks C C, which are arranged to fit the main recess *b* on each side of either rail and to enter by their reduced or tapered ends *e* within an overlapping lip, *f*, at each end of the main recess *b*, and which wedges or blocks are constructed to bear upon or over the lower flanges, *d*, of the rails and up against their webs *g*, thus, in connection with the recessed portions *c* of the ties, holding the rails securely in place.

To prevent the wedges or locking-blocks C C from working loose or out of place, saddles D, having eyes *h* at their ends, are fitted over said blocks within grooves *i* in their upper faces and pins *k* passed through the ties and eyes *h* of the saddles and clinched or bent over at their ends to prevent their accidental detachment.

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

1. The combination, with the tie B, having main upper recesses, *b b*, provided with overlapping end lips, *f f*, the sub-rail-holding recesses *c c*, and the rail-locking wedges or blocks C C, of saddle like fastenings adapted to hold said wedges or blocks to their places, substantially as specified.

2. The combination of the saddles D D, having eyes *h* at their ends, and the pins *k k*, with the tie B, having main upper recesses, *b*, lips *f f*, and sub-rail-holding recesses *c*, and the rail-locking wedges or blocks C C, essentially as specified.

ISRAEL G. HOWELL.

Witnesses:

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