

(No Model.)

C. B. HUTCHINS.

DEVICE FOR PREVENTING THE SPREADING OF RAILWAY RAILS.

No. 441,416..

Patented Nov. 25, 1890.

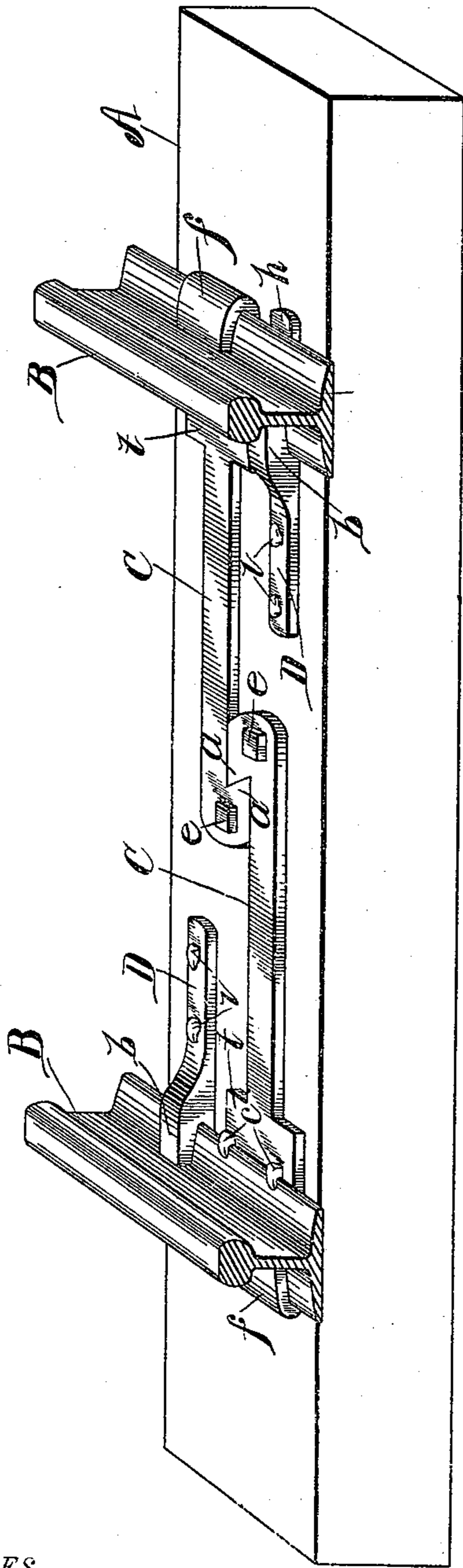


Fig. 1.

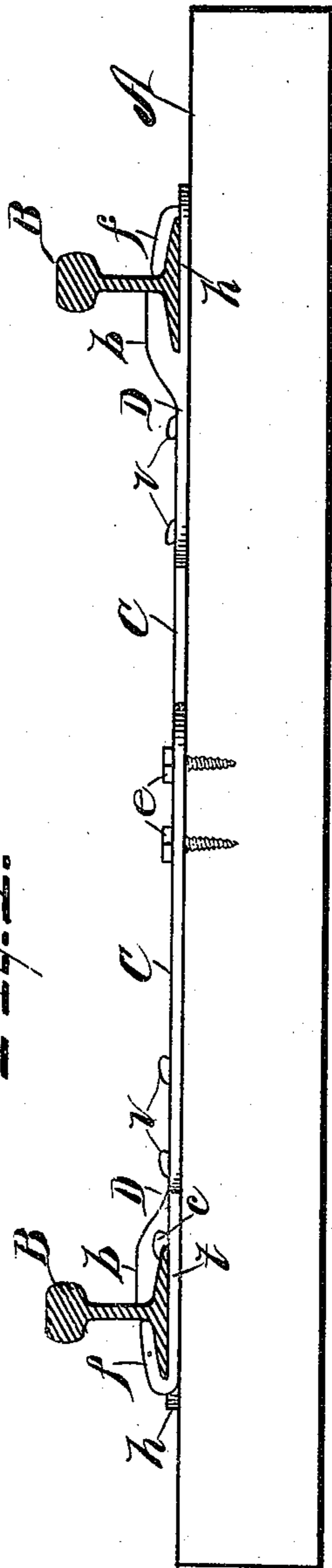


Fig. 2.

WITNESSES

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# UNITED STATES PATENT OFFICE.

CARLETON B. HUTCHINS, OF DETROIT, MICHIGAN.

DEVICE FOR PREVENTING THE SPREADING OF RAILWAY-RAILS.

SPECIFICATION forming part of Letters Patent No. 441,416, dated November 25, 1890.

Application filed April 5, 1890. Serial No. 346,772. (No model.)

*To all whom it may concern:*

Be it known that I, CARLETON B. HUTCHINS, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Devices to Prevent Spreading of Railway-Rails; and I 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 the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improved device for preventing the spreading of the rails of a railway, especially adapted for use at curves in the track; and it consists in a certain construction and arrangement of parts whereby the track is securely held to gage and the tipping and spreading of the rails prevented, as will be hereinafter more fully set forth, and the essential features of the device pointed out particularly in the claims.

In the accompanying drawings, forming a part of the specification, Figure 1 is a perspective view of a portion of a railway-track, showing the application of my improved device for securing the rails thereof. Fig. 2 is a side elevation of the same.

Referring to the letters of reference, A indicates the ordinary wooden tie; B B, the rails; C C, the coupling-bars, and D D the anchor-plates.

The outer ends of the bars C are provided with the broad bearing-plates *t*, that pass under the rails B, and are bent over so as to engage the outer edge of the base thereof, as shown at *f*, said plates *t* being secured by the spikes *c*, that are driven therethrough and into the tie A, said spikes also assisting to secure the inner edge of the base of the rails, as shown in Figs. 1 and 2. The inner ends of the bars C are provided with the hooks *a a*, that are adapted to engage with one another, and are secured by the screws *e e*, as clearly shown in Figs. 1 and 2.

The anchor-plates D are provided with the flattened bar *h*, that extends under the rail B, and with the prong *b*, that is adapted to engage the inner edge of the base thereof. Said

plates D are located between the rails B and are secured to the tie by means of the spikes *v*, as shown in Figs. 1 and 2, thereby, in conjunction with the turned ends *f* of the bars C, securely anchoring the rails in place.

The plates *t* and *h*, extending under the rails B, afford a broad bearing therefor and prevent said rails from cutting into the tie. The turned ends *f* of the plates *t* and the prongs *b* of the plates D, clamping the base of the rails, firmly secure said rails against tipping, and by means of the interlocking ends of the coupling-bars C said rails B are securely held from spreading.

Experience in the construction of railway-tracks has demonstrated the fact that that portion of a wooden tie between the rails will last as long again as the ends thereof, for the reason that the ends of the tie are more exposed and that moisture will work into the end of the wood more readily than into the side. In the ordinary construction of a railway-track the spikes that are driven along the outer edge of the rail split the tie, and being near the end of the tie their hold is very much weakened by the decay of the wood, permitting the rails to spread, and accidents at curves in the track resulting from the spreading of the rails are invariably due to this fact, while in my device the fastening spikes and screws are all located between the rails, where the wood of the tie is firm and solid, and are driven through the plates *t* D, that protect the wood around the spikes and exclude the water therefrom; and as an additional security for the screws *e e*, that secure the interlocking ends of the bars C, said screws may be dipped in oil before being screwed into the tie, whereby the wood around said screws is preserved and the fastening of the bars rendered permanent and secure.

It will be seen from the construction of the interlocking points of the bars C that the tendency of said parts when locked is to remain in contact, and when secured, as shown in Fig. 1, the rails cannot spread. It will also be seen by the arrangement of parts, as shown, that the supports and fastenings of one rail may be removed without in any way interfering with the other rail or loosening the fastenings thereof.

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

1. In combination with the tie and rails of a railway, the coupling-bars, their outer end portions engaging over the outer face of the base of the rails, their inner ends hooked together, and means for separately securing said hooked ends to the tie, for the purposes specified.

2. In combination with the tie and rails of a railway, the coupling-bars C, having the

hooked outer ends *f* and hooked inner ends *a*, the screws passing through said inner ends, the anchor-plates D, passing under the rails and engaging with the inner edge of the base of said rails, and means, substantially as set forth, for securing said anchor-plates to the tie. 15

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

CARLETON B. HUTCHINS.

Witnesses:

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