

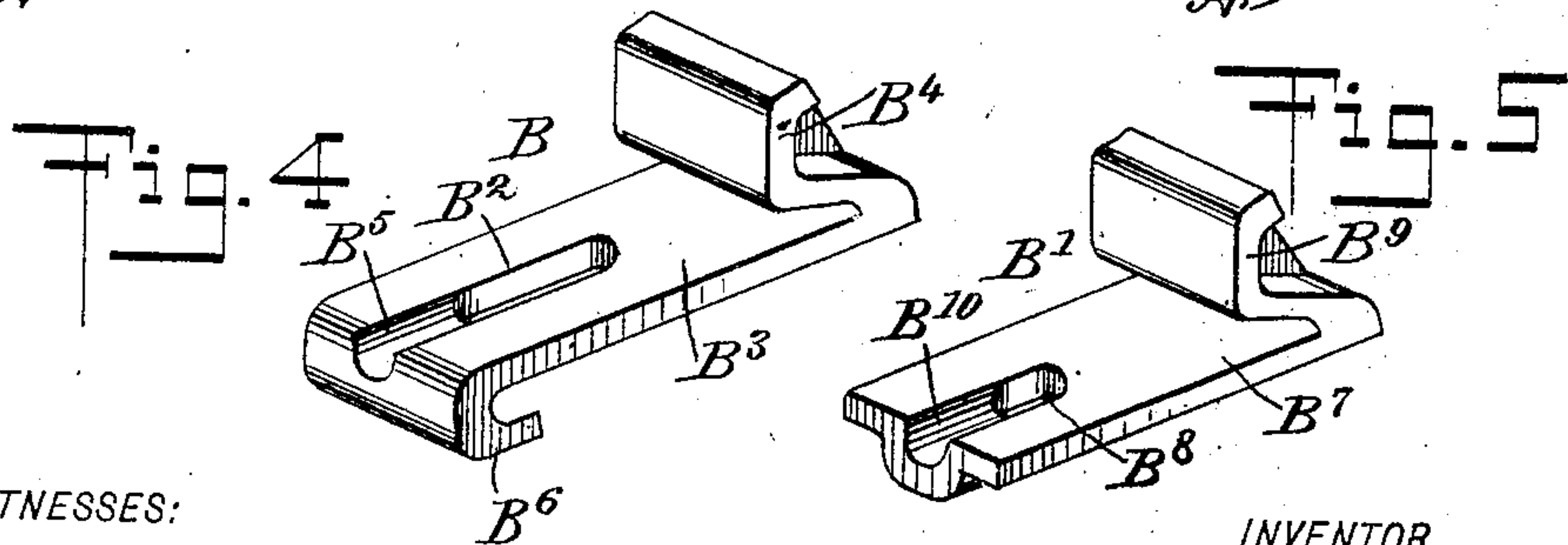
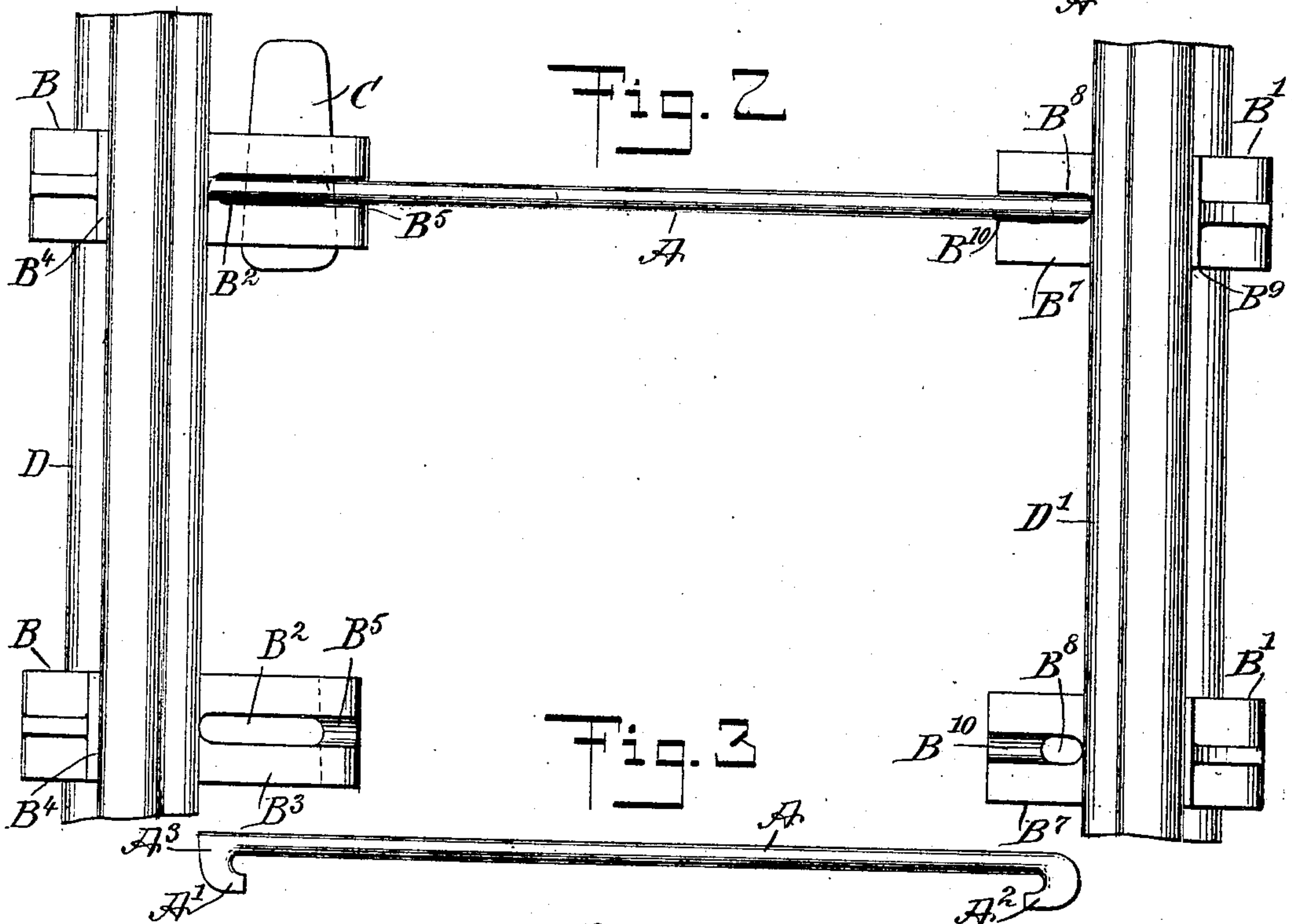
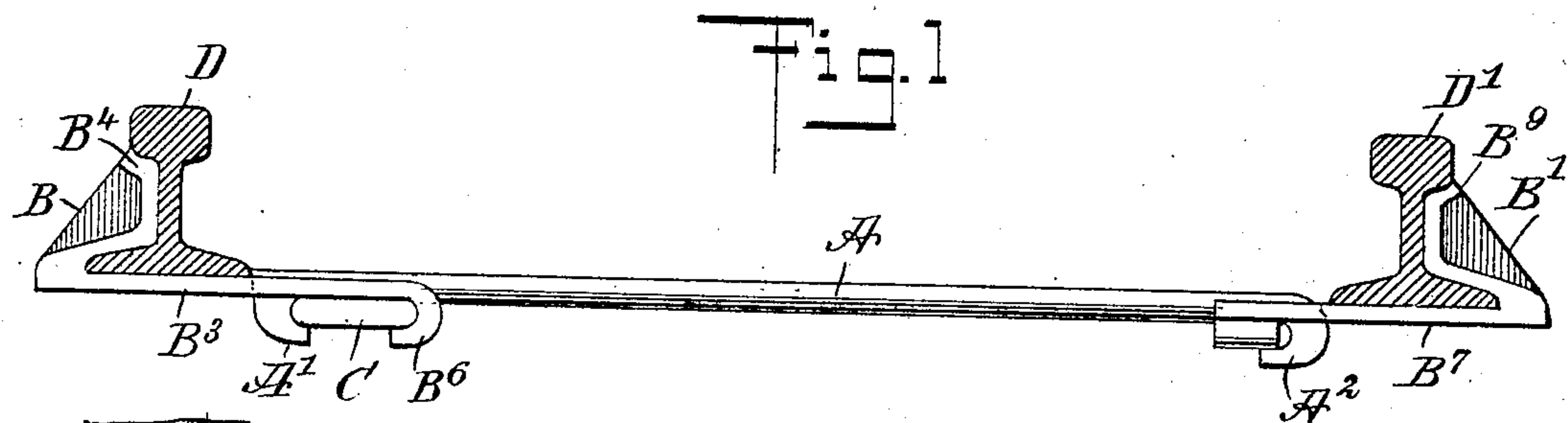
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PATENTED NOV. 6, 1906.

J. F. McKECHNIE.

TIE BAR.

APPLICATION FILED JUNE 5, 1906.



WITNESSES:
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JOSEPH FLEMING McKECHNIE, OF ELEELE, TERRITORY OF HAWAII.

TIE-BAR.

No. 835,456.

Specification of Letters Patent.

Patented Nov. 6, 1906.

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To all whom it may concern:

Be it known that I, JOSEPH FLEMING McKECHNIE, a citizen of the United States, and a resident of Eleele, Kauai, in the Territory of Hawaii, have invented a new and Improved Tie-Bar, of which the following is a full, clear, and exact description.

The invention relates to railway-tracks; and its object is to provide a new and improved tie-bar for connecting the rails with each other with a view to prevent spreading of the rails, especially at curves, and to relieve the sleepers of undue strain.

The invention consists of novel features and parts and combinations of the same, which will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a cross-section of the track-rails connected with each other by the improvement. Fig. 2 is a plan view of the same. Fig. 3 is a side elevation of the tie-rod, and Figs. 4 and 5 are perspective views of the rail-brackets.

The device consists, essentially, of a tie-rod A, brackets B B', and a key C for fastening the parts together, as hereinafter more fully described. The said tie-rod A is provided at its ends with integral hooks A' A², of which the hook A' is adapted to engage an elongated slot B², formed on the inner portion of the base B³ of the bracket B. The base B³ extends under the base of the track-rail D, and its outer end is provided with a rising arm B⁴, suitably reinforced by ribs and formed to fit the outer top portion of the rail-base as well as the outer face of the web of the rail D, as plainly indicated in Fig. 1.

The top of the inner portion of the base B³ of the bracket B is formed with a recess extending from the slot B² to the inner edge of the base B³, and into this recess fits the end of the rod A, as plainly shown in Fig. 2. An L-shaped lug B⁶ depends from the inner end of the base B³, and the key C is driven in engagement with this lug B⁶ and the hook A', so as to securely fasten the tie-rod A and the bracket B together.

The hook A' is provided with a square heel A³, adapted to abut against the inner edge of

the base of the rail D, as plainly shown in Figs. 1 and 2, to hold the rail D in firm position against the bracket-arm B⁴.

The bracket B' is provided with a base B⁷ having a slot B⁸ adapted to be engaged by the hook A² of the tie-rod A, and the said base B⁷ is provided at its outer end with an arm B⁹, similar to the arm B⁴, and adapted to engage the outer portion of the base of the rail D as well as the outer face of the web of the said rail. A recess B¹⁰ is formed on the top of the inner portion of the base B⁷ in alinement with the slot B⁸ to receive the corresponding end portion of the tie-rod A.

In order to place the several parts in position, it is necessary to first arrange the brackets B B' on the rails D D', and then the hook A² is hooked onto the base B⁷ and the hook A' is engaged with the slot B² of the bracket B. The key C is now driven in position between the hook A' and the lug B⁶, so that the parts are firmly united. Now by having the brackets B B' arranged with the rising arms B⁴ B⁹ it is evident that a spreading of the rails D D' is prevented.

The device is very simple and durable in construction, is composed of comparatively few parts, and is not liable to get easily out of order. By having the tie-rod A engaging the recesses B⁵ B¹⁰ it is evident that movement in the direction of the length of the track is prevented, and, consequently, the brackets B B' are held in transverse alinement with each other.

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

1. A tie-bar comprising a rod having hooks at its ends, brackets for engaging the rails and having slots for engagement by the hooks of the said rod, one of the brackets having an integral lug, and a key adapted to engage the said lug and the adjacent hook of the said rod.

2. A tie-bar comprising brackets for engaging the rails, each bracket having a base extending under the rail-base and an arm rising integrally from the outer end of the said base to fit the outer portion of the base of the rail and the outer surface of the web of the rail, the bases of the said brackets having slots and top recesses leading from the slots to the inner edges of the bases, one of the latter having a depending lug at its inner end, a

rod having hooks at the ends for engaging the said slots, and a key for engaging the said lug and the adjacent hook of the said rod.

3. A tie-bar comprising brackets for engaging the rails, each bracket having a base extending under the rail-base and an arm rising integrally from the outer end of the said base to fit the outer portion of the base of the rail and the outer surface of the web of the rail, the bases of the said brackets having slots and top recesses leading from the slots to the inner edges of the bases, one of the latter having a depending lug at its inner end, a

rod having hooks at the ends for engaging the said slots, one of the hooks having a square heel abutting against the inner edge of the corresponding rail-base, and a key for engaging the said lug and the adjacent hook of the said rod. 15

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 20

JOSEPH FLEMING McKECHNIE.

Witnesses:

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