

(No Model.)

B. SMITH.
RAIL FASTENING.

No. 453,922.

Patented June 9, 1891.

Fig. 1.

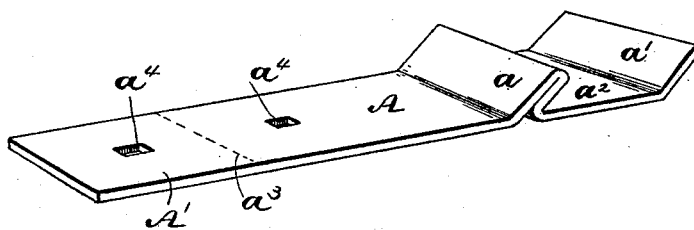


Fig. 2.

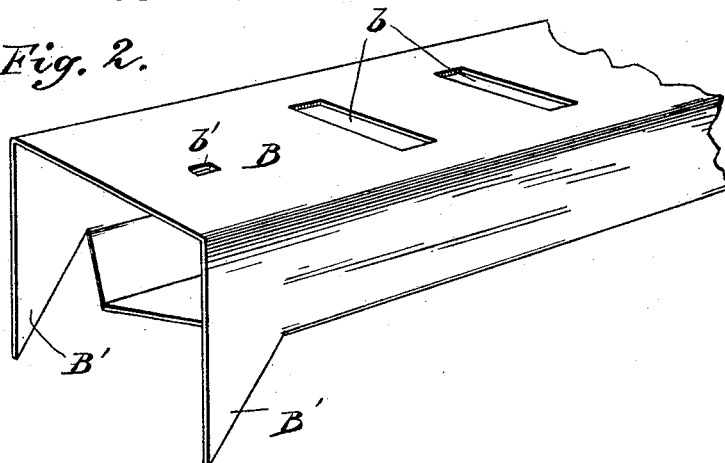
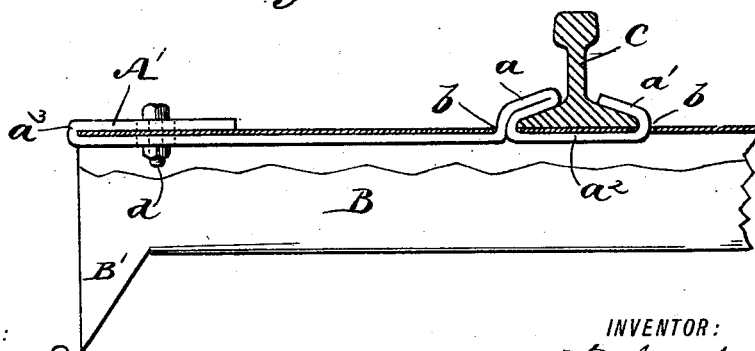


Fig. 3.



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BRIDGES SMITH, OF MACON, GEORGIA.

RAIL-FASTENING.

SPECIFICATION forming part of Letters Patent No. 453,922, dated June 9, 1891.

Application filed November 11, 1890. Serial No. 371,028. (No model.)

To all whom it may concern:

Be it known that I, BRIDGES SMITH, of Macon, in the county of Bibb and State of Georgia, have invented a new and useful Improvement in Rail-Fastenings, of which the following is a full, clear, and exact description.

My invention relates to improvements in attaching railroad-rails to the sleepers; and the object of my invention is to provide a fastening of simple construction that may be easily applied to any hollow or flat sleeper, and which will attach the rail securely in place.

To this end my improvement consists of certain features of construction and combinations of parts, which will be hereinafter fully described, and then pointed out in the claims.

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 is a detailed perspective view of the fastening embodying my invention. Fig. 2 is a broken perspective view of a sleeper adapted to receive the fastening, and Fig. 3 is a sectional view showing the application of the fastening to a sleeper and to a rail.

The fastening comprises a flat plate A, which is made of malleable metal, the plate being doubled, as shown at *a*, so as to form a flange which extends diagonally from the body of the plate and the angle of which approximates the angle of the top of the rail-flange, a flange *a'* at one end of the plate, and a flat surface *a²* between two flanges *a* and *a'*, on which the rail rests. The distance between the two flanges *a* and *a'* corresponds to the width of the bottom flange of the rail, and the end flange *a'* is normally bent at about the same angle as the flange *a*, as best shown in Fig. 1, so that a rail may be easily inserted in place, after which the end flange is doubled over onto the rail-flange, as shown in Fig. 3. Near the outer end of the plate A are aligned bolt-holes *a⁴*, so that when the plate is doubled upon the sleeper, as described below, the holes will vertically align, so that a bolt may

be passed through them to fasten the plate to the sleeper.

The sleeper B, to which the fastening is attached, is hollow, as shown, and has depending points B' to hold it in place, and in the upper surface of the sleeper near the end are parallel slots *b*, which correspond in length to the width of the plate A, and which are adapted to receive the flanges *a* and *a'* of the plate. The sleeper is also provided with a slot *b'* to receive the bolt *d*, by means of which the plate A is fastened to the sleeper.

I have shown a peculiar form of tie adapted to receive the fastening; but it is obvious that any hollow tie may be slotted, as described, to receive the fastening, and that any flat metal tie may be similarly prepared.

The fastening is applied as follows: The plate A is placed on the under side of the top surface of the sleeper with the flanges *a' a'*, extending upwardly through the slots *b* and with its outer end projecting beyond the end of the sleeper. The plate is then doubled at *a³*, so that its outer end will lie flatwise upon the top of the sleeper and the bolt-holes *a⁴* will align with each other and with the slot *b'*. A bolt *d* is then inserted in the bolt-holes, thus fastening the plate to the sleeper. The rail C is then placed between the flanges *a* and *a'* and the flange *a'* doubled over upon the rail-flange, as shown in Fig. 3, thus securing the rail. It will be seen that the plate A would be held in place by merely doubling it upon the sleeper, as shown; but it is better to use the bolt *d* as an additional precaution. It will be observed that the slot *b'* in the sleeper is somewhat longer than the thickness of the bolt *b*, thus allowing for the expansion and contraction of the plate A.

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

1. A rail-fastening comprising a flat plate having means for attachment to a sleeper, said plate having at one end parallel flanges adapted to be doubled upon a rail-flange, substantially as shown and described.

2. The combination, with a railroad-sleeper

having transverse parallel slots therein, of a plate having at one end flanges which project through the slots to receive a rail and having its opposite end doubled upon the end of the sleeper, substantially as shown and described. 10

5 3. The combination, with a railroad-tie having transverse parallel slots therein, of a malleable plate having its inner end formed into

two flanges which project through the slots to receive a rail, and having its opposite end doubled upon the sleeper and bolted thereto, substantially as shown and described.

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Witnesses:

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