

(No Model.)

E. SAMUEL.
BRACE TIE PLATE.

No. 503,806.

Patented Aug. 22, 1893.

FIG. 1.

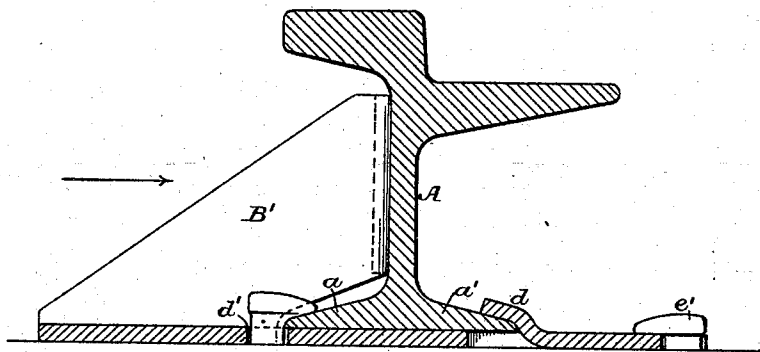


FIG. 2.

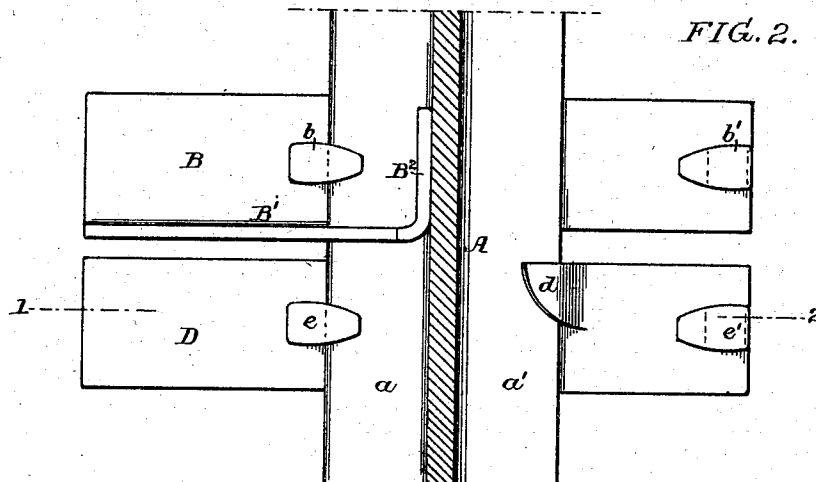
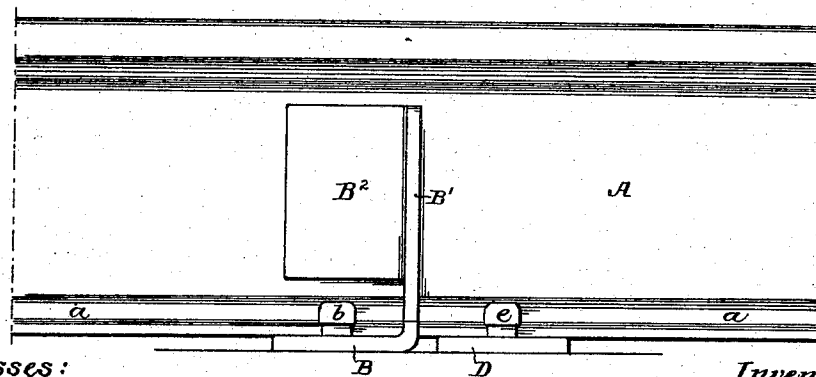


FIG. 3.



Witnesses:
Alex. Bartoff
R. Schlicher.

Inventor:
Edward Samuel
by his Attorneys
Humm Humm

UNITED STATES PATENT OFFICE.

EDWARD SAMUEL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE
WILLIAM WHARTON, JR., & COMPANY, INCORPORATED, OF SAME PLACE.

BRACE TIE-PLATE.

SPECIFICATION forming part of Letters Patent No. 503,806, dated August 22, 1893.

Application filed January 5, 1893. Serial No. 457,367. (No model.)

To all whom it may concern:

Be it known that I, EDWARD SAMUEL, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Brace Tie-Plates, of which the following is a specification.

The object of my invention is to construct a simple and effective tie plate and brace which can be readily applied to a rail after it is in position. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1, is a transverse sectional view on the line 1—2, Fig. 2. Fig. 2, is a plan view with the rail in section; and Fig. 3, is a side view looking in the direction of the arrow, Fig. 1.

A is the rail having a base flange, and the head of this rail can be of any shape desired. B and D are two tie plates situated side by side. These tie plates are preferably made of plate metal, struck up to the shape shown, the plate B having a side extension which, when bent up as shown in Fig. 1, forms a brace B' for the rail A. This brace extends to or nearly to the head of the rail, and has a portion B² which rests against the web of the rail. This brace takes the side thrust of the wheels of the car against the rails. The plate D is passed under the rail as shown in Fig. 2, and has a lip *d* struck up from the plate. This lip passes over the base flange of the rail on the side opposite that on which the brace rests. A spike *e* is passed through a hole *d'* in the plate D, and its head extends over the base flange *a*, and this hole is so punched that when the spike is driven it will draw the lip *d* hard against the base flange *a'*. A spike *e'* is driven through an opening in the inner edge of the plate to secure that portion of the plate to the ties. The plate B is passed under the rail from the opposite side. A spike *b* passes through a hole in the plate B, such hole being so placed as to allow the brace on plate B being brought firmly against the web of the rail. The other hole in the plate through which spike *b'* passes is on the other side of the rail and far enough out to permit

it being driven easily without the long flange or tram of the head of the rail interfering. The plate B before being spiked is driven laterally until its brace is firm against the web, the rail itself being prevented from moving inwardly by the lip *d* on plate D which has already been spiked to the tie, and the rail thus firmly held. After the brace is well up against the web, spike *b'* is driven in such an angle as to continue to draw the brace against the web of the rail, and when so drawn the spike *b* is driven which holds the rail firmly to its base. It will thus be seen that the tie plates can be slipped under the rails after they are arranged in line, the plate B' being slipped under the rail from the outside, while the plate D is slipped under the rail from the inside, and the securing spikes when driven, after the rail has been properly aligned, tend to clamp the tie plates to the rail. These tie plates can be readily removed when necessary to repair the track, by simply drawing the spikes.

I claim as my invention—

1. The combination of a rail, a tie plate having a brace adapted to bear against one side or under the head of the rail, a tie plate having a lip adapted to pass over the base flange on the opposite side of the rail, and means for securing the plates to the tie, substantially as described.

2. The combination of the rail and base flange, with a flat plate B having a brace B' adapted to bear against the outside of the rail, said plate being adapted to pass under the rail when aligned, with a plate D at the side of the plate B and having a lip adapted to pass over the base flange of the rail on the inside, the body of the plate being flat so as to pass under the rail, with securing devices for both plates, substantially as described.

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

EDWARD SAMUEL.

Witnesses:

WILLIAM D. CONNER,
JOSEPH H. KLEIN.