

A. R. DAVIS.  
RAIL BRACE.

APPLICATION FILED NOV. 25, 1911.

1,041,969.

Patented Oct. 22, 1912.

2 SHEETS—SHEET 1.

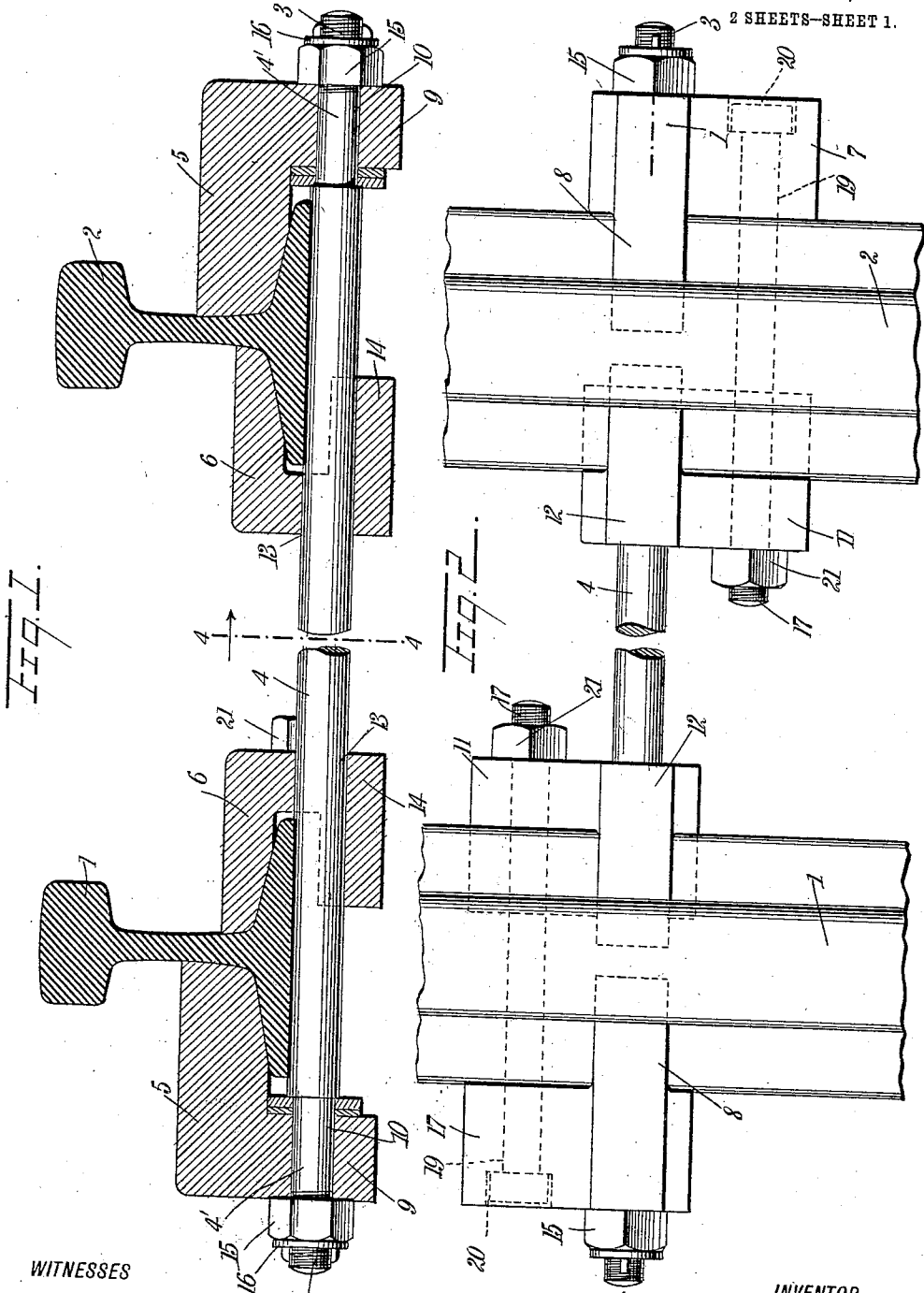


FIG. 1.

FIG. 2.

WITNESSES  
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Fig. 3.

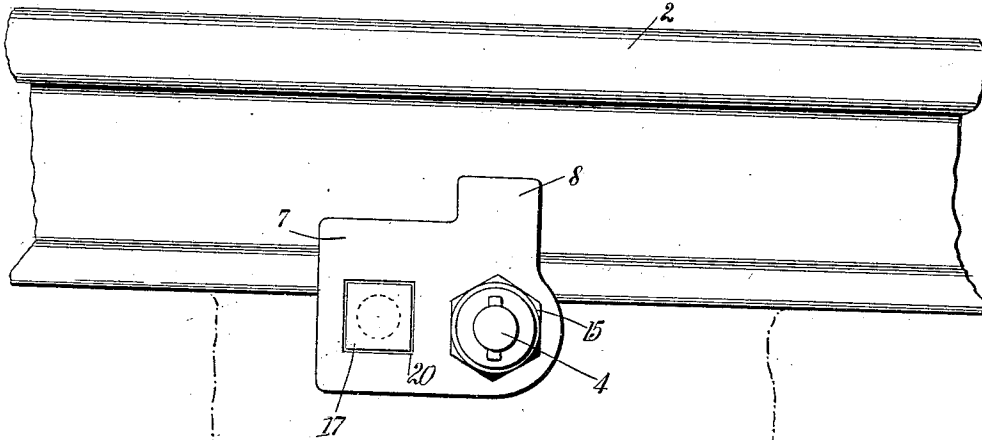


Fig. 4.

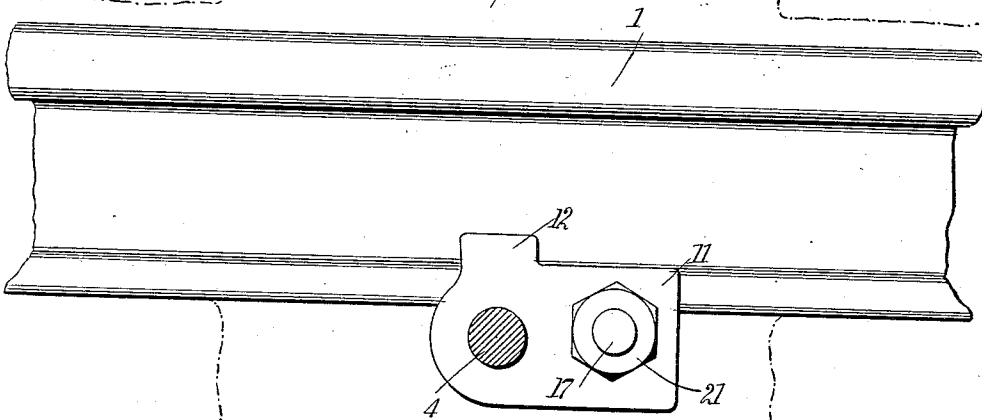
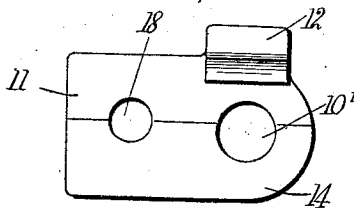


Fig. 5.



WITNESSES

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# UNITED STATES PATENT OFFICE.

ALBERT RHEA DAVIS, OF ONEIDA, NEW YORK.

## RAIL-BRACE.

1,041,969.

Specification of Letters Patent.

Patented Oct. 22, 1912.

Application filed November 25, 1911. Serial No. 662,295.

*To all whom it may concern:*

Be it known that I, ALBERT R. DAVIS, a citizen of the United States, and a resident of Oneida, in the county of Madison and State of New York, have invented a new and Improved Rail-Brace, of which the following is a full, clear, and exact description.

My invention relates generally to rail braces and more particularly is directed to a construction adapted to extend between and engage both rails of a track whereby spreading of the same, due to lateral pressure, may be prevented.

A further object of the invention is to provide a new and useful brace made up of a small number of easily constructed parts whereby the cost of production and maintenance of such structure is kept low.

Other objects and advantages of the invention will appear as the description thereof proceeds, all of which is particularly pointed out and included in the appended claims.

Reference is to be had to the accompanying drawings forming a part of this specification in which similar characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a vertical sectional view on the line 1—1 of Fig. 2; Fig. 2 is a plan view of rails with the brace secured thereto; Fig. 3 is a side view of one rail; Fig. 4 is a sectional view on the line 4—4 of Fig. 1; Fig. 5 is a side view of the jaw shown in Fig. 4.

The brace is adapted to be positioned between the rails 1, 2, of any track, the brace being made up of a transversely extending rod 4 having threaded ends 3; adjacent each end of the rod are a plurality of jaws 5, 6, positioned thereon and adapted to engage the opposite sides of the flanges of the rails.

Each of the outside jaws 5 comprises a body portion 7 having an integral laterally extending portion 8, the body of the jaw being extended downwardly along its outer side, as at 9, there being an opening 10 there-through into which the reduced ends 4' of the rod 4 pass. As shown particularly in Fig. 1, the laterally extending portion 8 of each jaw is adapted to extend upwardly adjacent to and into contact with the web of the rails 1, 2, the body portion 7 extending along the bottom flanges of the rails.

The inside jaws 6 comprise a body portion 11 having a laterally extending offset por-

tion 12, the body being provided with an opening 13 extending transversely thereof through which the intermediate portion of the rod 4 is adapted to pass, it being noted that the under side of the rails are in engagement with this rod between the said jaws. Each inside jaw is further provided with a laterally extending bottom portion 14 which extends from the body throughout the length of the same, the openings 13 in these jaws being substantially intermediate the pocket formed by the bottom portion 14 and the top portion 6 as shown particularly in Fig. 5.

The outer jaws 5 are positioned on the ends of the rod 4 and is held in firm engagement with the outer sides of the rails by means of suitable nuts 15 on the ends of the rod, the nuts being locked in position by any suitable locking device 16, if so desired. Each of the inner jaws 6 is freely movable or adjustable along the rod 4, these jaws being retained in engagement with the inside of the rails by means of a bolt 17 passing through an opening 18 in each inner jaw, also through another opening 19 in each outer jaw, each outer jaw being provided with a recess 20 adapted to receive the head of the bolt and to hold it against turning, such being shown particularly in Fig. 3. The inner jaws are retained in engagement with the rails through the means of nuts 21 positioned on the bolts 17, the parts being then firmly secured, as shown in Figs. 1 and 2.

With the jaws secured on the rod, as previously described, it will be apparent that lateral movement of the rails relatively to each other is prevented since each rail is firmly engaged with the rod and the rod itself extends transversely of the track, the rod further serving as a support for the bottom flange of each rail.

In Figs. 3 and 4 the ties on which the rails are positioned are shown in broken lines, the jaws being conveniently positioned between successive ties when so desired.

The material and size of the jaws and the rod will depend upon the nature of the traffic and the design of these parts will be such that they will withstand the lateral pressure brought to bear on the rails, the relative sizes and the material of the parts being included within the spirit of the appended claims.

Having thus described my invention, I

claim as new, and desire to secure by Letters Patent:—

1. A rail brace comprising a rod, jaws adjacent the outer ends of the rods, the said jaws being downwardly extended along the outer sides, the said downwardly extending portions being provided with transversely extending openings through which the rod passes, nuts on the rod for engagement with the jaws for holding them in position, other jaws intermediate the ends of the rod, the said jaws being provided with laterally extending bottom portions through which the rod passes, and also provided with laterally extending offset upper portions for engagement with the inner sides of the rails, the said rod being positioned beneath the bottom of the rails, together with a bolt and nut engaging the jaws adjacent each of the rails for holding them secured together.

2. A rail brace comprising a rod with threaded end, jaws adjacent the outer ends of said rod, the jaws being provided with openings through which the rod extends, the said jaws being downwardly extended along the outer sides, nuts on the said rod for en-

gagement with the jaws for holding them in place on the outer sides of the rails, other jaws intermediate the ends of the rod and adjacent the inner sides of the rails, the said second jaws being provided with laterally extending bottom portions having openings therein through which the said rod passes, the said second jaws being also provided with laterally extending offset upper portions for engagement with the inner sides of the rails, each of the jaws engaging each rail being provided with registering openings, and a bolt extending through the openings and beneath the bottom of the rails, together with a nut engaging the end of the bolt whereby the jaws are held adjacent the rails, the rails being prevented from spreading through the medium of the said rod.

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

ALBERT RHEA DAVIS.

Witnesses:

WILLIAM G. HILL,  
R. STEWART RYAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."