

APPLICATION FILED MAY 16, 1911.

Patented Jan. 16, 1912.

A technical drawing of a mechanical assembly, likely a valve or a pump component. The drawing shows a cross-section of the assembly. The main body is a large, rectangular block (1) with a central vertical passage. A smaller, cylindrical component (2) is mounted on top of the main body. A bolt (3) is used to secure the assembly. A flange (4) is located at the base of the main body. A pipe (5) is connected to the side of the main body. A valve (6) is located at the bottom of the main body. A handle (7) is attached to the side of the main body. A screw (8) is used to secure the handle. A nut (9) is used to secure the handle. A washer (10) is located between the handle and the main body.

H.A. Hacy, Attorneys.

UNITED STATES PATENT OFFICE.

JAMES P. VAUGHT AND COLUMBUS M. WALKER, OF KELLERMAN, ALABAMA.

RAIL-BRACE.

1,015,102.

Specification of Letters Patent.

Patented Jan. 16, 1912.

Application filed May 16, 1911. Serial No. 627,582.

To all whom it may concern:

Be it known that we, JAMES P. VAUGHT and COLUMBUS M. WALKER, citizens of the United States, residing at Kellerman, in the county of Tuscaloosa and State of Alabama, have invented certain new and useful Improvements in Rail-Braces, of which the following is a specification.

This invention relates to rail braces, and more particularly to a brace designed to support the meeting ends of two rails in such manner as to prevent downward yield of these ends as the wheels of a train pass over them, and it is the primary aim of the invention to so construct the brace that it will at the same time prevent spreading of the rails; that is to say, it will prevent the meeting ends of two rails spreading away from a parallel rail.

The invention aims further to so construct the brace that it will effectually prevent loosening of the spikes which secure the rail to the ties.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings in which:

Figure 1 is a side elevation of the rail brace embodying the invention. Fig. 2 is a vertical transverse sectional view on the line 2—2 of Fig. 1. Fig. 3 is a perspective view of the rail chair of the brace.

Corresponding and like parts are referred to in the following description, and indicated in all the views of the accompanying drawings by the same reference characters.

In the drawings there is shown a section of track sufficient to illustrate the application of the brace embodying the present invention, and of this section of track certain of the ties are indicated by the numeral 1 and certain others by the numeral 2, and the meeting ends of the two rails to be braced are indicated by the numeral 3. In connection with the brace proper there is provided a rail chair consisting of a base portion 4 and an upstanding rail engaging wing 5 designed to rest against one side of the web of the rails 3 and overlap the base flanges of these rails at the corresponding sides. The base 4 of the chair is of such width that a portion 6 thereof projects beyond the other side of the rails, and this projecting portion of the base is formed with openings 7 through which are driven spikes 8 serving,

as usual, to secure the lower edge of a fish plate 9 which is bolted to the webs of the rails at their meeting ends, the bolts securing the fish plate in place also through the rail engaging portion 5 of the rail chair.

The brace proper includes a saddle bar 10 each end of which is formed with an upstanding boss 11, and this bar has its intermediate portion depressed so as to support the ends of the ties 2, the ends of the saddle bar being disposed upon the ends of the ties 1. A bridge bar 12 is disposed at its ends upon the ends of the saddle bar and lag screws 13 are secured through the ends of the bridge and saddle bars and into the ties 1. The end edges of the bridge bar 12 rest against the upstanding bosses 11, and the intermediate portion of the bridge bar is slightly depressed as at 14 and extends over the projecting portion of the rail chair base 4. Lag screws 15 are secured through the depressed portion of the bridge bar 12 and through the projecting portion of the rail chair base 4 and into the ties 2.

From the foregoing it will be readily understood that due to the fact that the rail chair engages one side of the meeting ends of the rails and at its other side is braced against lateral movement by the bridge bar and the lag screws 15, spreading of the ends of the rails away from the opposite rail of the track is prevented. It will also be understood that the meeting ends of the rails are firmly braced and supported against downward yield when the wheels of a train pass over them, and that they are also held against springing upwardly, due to the fact that the ends of the bridge bar engage against the upstanding bosses 11 of the saddle bar.

Having thus described the invention, what is claimed as new is:—

1. In a rail brace, a saddle bar formed at its ends with upstanding bosses, a bridge bar disposed at its ends upon the saddle bar with its end edges seating against the said bosses, and securing elements inserted through the ends of the saddle and bridge bars.

2. In a rail brace, a saddle bar formed at its ends with upstanding bosses, a bridge bar disposed at its ends upon the saddle bar with its end edges seating against the said bosses, securing elements inserted through the ends of the saddle and bridge bars, a rail chair having a rail engaging portion and a base

extending beneath the bridge bar, and securing elements inserted through the bridge bar and the base of the rail chair.

3. In a rail brace, a saddle bar, a bridge bar disposed at its ends upon the saddle bar, a rail chair having a base projecting beneath the bridge bar, securing elements inserted through the ends of the saddle and bridge bars, and securing elements inserted through the bridge bar and the base of the rail chair.

4. In a rail brace, a saddle bar, a bridge bar disposed at its ends upon the saddle bar, a fish plate having a base formed at one side with a rail engaging portion and extending at its other side beneath the bridge bar, securing elements inserted through the ends of the saddle and bridge bars, and securing elements inserted through the bridge bar and the said portion of the base of the rail chair.

5. The combination with ties, and the meeting ends of rails disposed thereon, of a rail brace comprising a saddle bar disposed

at its ends upon certain of the ties and extending at its intermediate portion beneath another of the ties, a bridge bar disposed at its ends upon the ends of the saddle bar, securing elements inserted through the ends of the bridge and saddle bars and secured into the first mentioned ties, a rail chair having a portion engaging one side of the meeting ends of the rails, and a base extending beneath the said ends of the rails and beneath the intermediate portion of the bridge bar, the said base of the chair resting upon the last mentioned tie, and a securing element inserted through the bridge bar and the said portion of the base of the rail chair and secured to the last mentioned tie.

In testimony whereof, we affix our signatures in presence of two witnesses.

JAMES P. VAUGHT. [L. S.]
COLUMBUS M. WALKER. [L. S.]

Witnesses:

GLEN. T. WALKER,
JOHN C. WATSON.

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