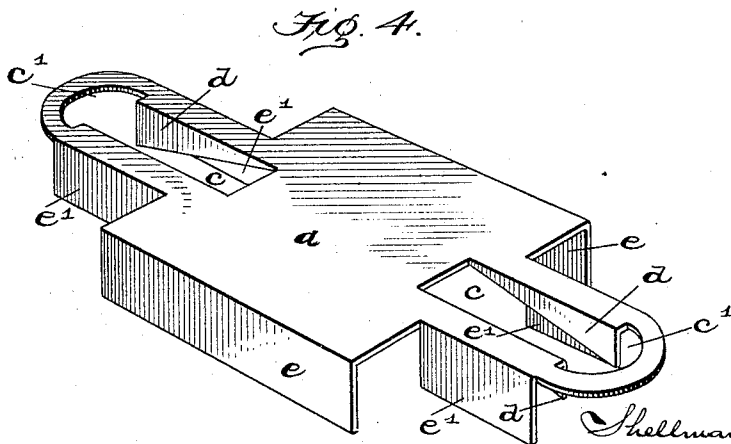
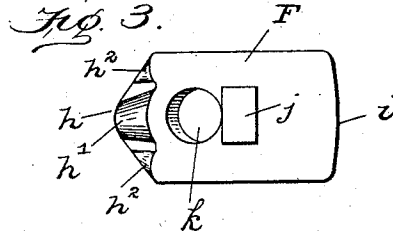
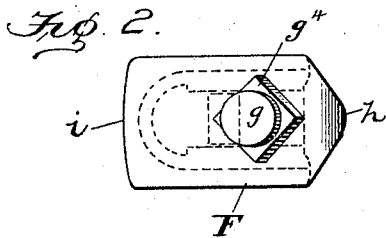
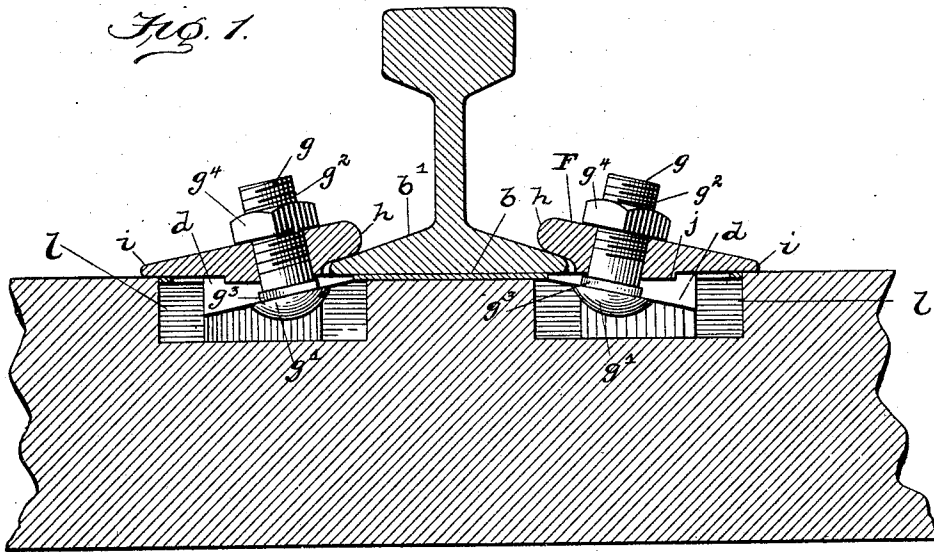


No. 788,244.

PATENTED APR. 25, 1905.

S. B. BROWN.
CHAIR FOR RAILROAD RAILS.

APPLICATION FILED AUG. 4, 1904.



Witnesses

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UNITED STATES PATENT OFFICE.

SHELLMAN B. BROWN, OF ANNAPOLIS, MARYLAND.

CHAIR FOR RAILROAD-RAILS.

SPECIFICATION forming part of Letters Patent No. 788,244, dated April 25, 1905.

Application filed August 4, 1904. Serial No. 219,459.

To all whom it may concern:

Be it known that I, SHELLMAN B. BROWN, a citizen of the United States, residing at Annapolis, in the county of Anne Arundel and State of Maryland, have invented certain new and useful Improvements in Chairs for Railroad-Rails, of which the following is a specification.

This invention relates to chairs for railroad-rails, and has for its object to provide a new form of chair and also new adjustable rail-clamps combined with said chair, the clamps serving to act on the bottom flange of the rail and hold the rail firmly in its position.

One of the objects of the invention is to provide a rail-chair that will be well adapted for use with special cross-ties, such as are formed of material when in a plastic state and subsequently hardened. It is to be understood, however, that the improved rail-chair is not limited to use with cross-ties of the character named.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a cross-tie, a rail, and the improved chair and clamps in section. Fig. 2 shows a top view of one of the improved rail-clamps, including the bolt and nut. Fig. 3 shows a bottom view of one of the clamps. Fig. 4 is a perspective view of the rail-chair on a larger scale.

The chair has a top surface *a*, which serves as a seat for the bottom *b* of the rail to rest on. At opposite sides of this seat are straight slots *c*. The two parallel side walls of said slots have inclines *d*, extending from said seat both downward and away therefrom. At one end each slot has an enlargement or widening *c'*. The rail-chair has down-flanges which are intended to take into or be pressed into the top of the cross-tie, and thereby anchor or fasten the latter tightly to the tie. In the present instance down-flanges *e* are on opposite sides of the seat and down-flanges *e'* on the part where the straight slots are formed.

The clamps comprise a dog-plate *F* and a screw-bolt *g*. Two of these clamps are employed with each rail-chair. The dog-plate has an end or nose *h*, which is preferably pro-

vided with a bottom surface *h'*, which is curved in a crosswise direction, and this curved surface of the dog-plate contacts with the bottom flange *b'* of the rail. The dog-plate is also provided with stop-shoulders *h''*, which contact with the edge of the flange *b'* at each side of the curved surface *h'*, so that each dog-plate has three contact-points with the rail. The other end, *i*, of the dog-plate rests upon the chair and covers one of the slots *c* and *c'*. The dog has on its under side a downward lug *j* broad enough to fill the width of the slot *c* in the chair, and thereby keep the dog-plate from sidewise movement. A bolt-hole *k* is also in the dog-plate. A screw-bolt *g* has a head *g'*, a screw-threaded end *g''*, a shoulder *g'''*, and a nut *g''''*.

In the application of the rail-chair the tie will have formed in its upper surface two sockets *l* the same distance apart as the two slots *c* in the chair. The metal chair is placed so that its slots *c* will coincide with the said sockets *l* and its down-flanges *e* *e'* embedded in the material of the cross-tie, which serves to anchor or fasten the chair. When the rails are ready to be laid, the bottom *b* of the rail is seated on the top surface *a* of the chair, and the clamps are then ready to be applied. To apply the dog-plates *F*, the first thing is to insert the screw-head *g'* down through the enlarged or widened part *c'* of the slot and have the side parts of the head take under the inclines *d*, as seen in Fig. 1. This leaves the screw-threaded end *g''* projecting upward. The dog-plate is then placed in position, its bolt-hole *k* taking over the screw-threaded end and the nose *h* resting upon the flange *b'* of the rail. The nut *g''''* is then applied to the bolt, and the parts may be adjusted. It will be seen that by tightening the nut the dog-plate is caused to tightly clamp the bottom flange *b'* of the rail. It will also be seen that as two dog-plates are used, one on each side of the rail, the position of the rail may be adjusted with accuracy to insure that the two rails of the track will have the correct gage. After the rail has been worn on the inside of its head the clamp device will enable the position of the rail to be readjusted, so as to compensate for such wear.

The rail-chair here described may be formed by dies from sheet-steel, or it may be made of cast metal.

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

1. A chair for rails having a top surface to serve as a seat for the bottom of a rail and provided at opposite sides with straight slots having side walls with inclines, and also provided with flanges projecting downward below the bottom of said seat.

2. A chair for rails having a top surface to serve as a seat for the bottom of a rail and provided at opposite sides with straight slots having at one end an enlargement or widening.

3. A chair for rails having a top surface to serve as a seat for the bottom of a rail and provided at opposite sides with straight slots

having at one end an enlargement or widening, said slots having side walls with inclines.

4. The combination of a chair for rails having a top surface to serve as a seat for the bottom of a rail and provided at opposite sides with straight slots and seated against the inclined side walls; a dog-plate at each side and having an end nose designed to take on the bottom flange of the rail; a screw-bolt in each slot—the bolt-head being downward and seated against the inclined side walls; and a nut on the bolt and pressing down on the dog-plate.

In testimony whereof I affix my signature in presence of two witnesses.

SHELLMAN B. BROWN.

Witnesses:

D. H. STALEY,
H. SCOTT ARNOLD.