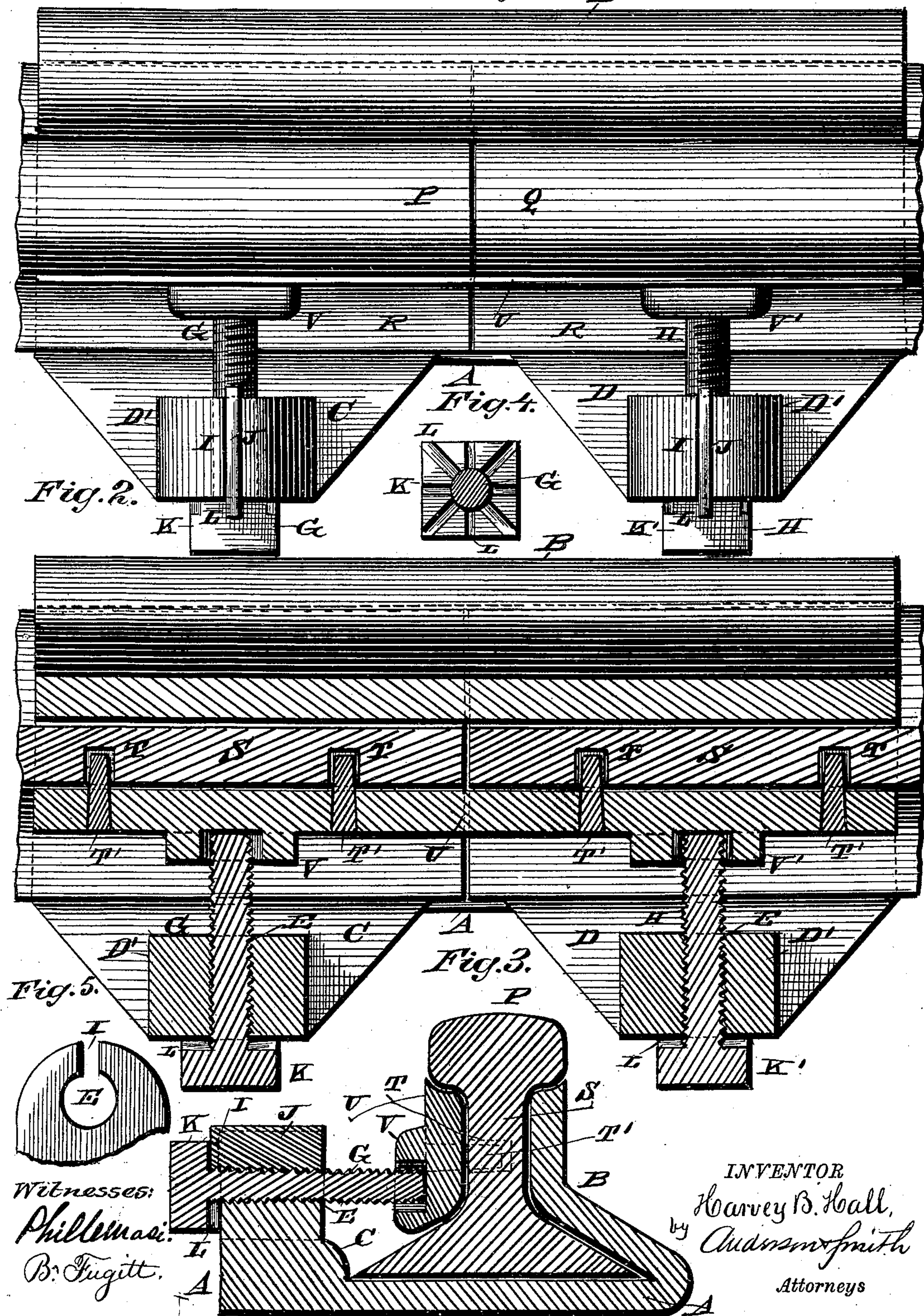


H. B. HALL.

No. 356,404.

Patented Jan. 18, 1887.

*Fig. 1. B*





# UNITED STATES PATENT OFFICE.

HARVEY B. HALL, OF HOMER, ILLINOIS, ASSIGNOR OF ONE-THIRD TO  
PHILIP C. MASIER, OF SAME PLACE.

## DEVICE FOR SECURING RAILROAD-RAILS.

SPECIFICATION forming part of Letters Patent No. 356,404, dated January 18, 1887.

Application filed May 15, 1886. Serial No. 202,288. (No model.)

*To all whom it may concern:*

Be it known that I, HARVEY B. HALL, a citizen of the United States, residing at Homer, in the county of Champaign and State of Illinois, have invented certain new and useful Improvements in Devices for Securing Railroad-Rails; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a plan view. Fig. 2 is a horizontal section. Fig. 3 is a transverse section through one of the bolts. Figs. 4 and 5 represent detail views.

My invention relates to railroad-chairs; and it consists in the construction and novel combination of parts, as hereinafter set forth, and pointed out in the claims.

Referring by letter to the accompanying drawings, A designates the base of the chair, which is provided along one side with the integral inwardly-inclined and upwardly-extended cheek-piece B. At its opposite side the base of the chair is provided with integral raised projections C and D, which are provided on their upper faces with integral ears or lugs D' D', which have horizontal transverse bolt-holes E, which are threaded internally to receive the threaded headed bolts G and H. These lugs or ears D' D' are provided in their outer faces, directly over the bolt-hole, with half-recesses I, which communicate with the upper portions of the bolt-holes. The bolt-heads K K' are rectangular in form in outline, and are provided in their inner faces with radial recesses L, eight in number, either of which may be brought to register with the half-recesses I, so that a key, J, may be driven into the seat formed by the union of a half-recess, L, with the half-recess I, to lock the bolt and prevent it from being turned by the jarring motion of a moving train or by accident in any other way while the key J is in place, and said key can only be removed by design.

P and Q designate the meeting ends of two

railroad-rails, and R designates the base-flanges of said rails, the upper faces of said flanges being inclined.

S designates the webs of the rails, said webs being provided with holes T T—two near each end of the web—for the reception of the pins T', projecting from the inner face of the fish-bar U, the lower edge of which is beveled to fit the incline of the base-flanges of the rails. On its outer face the fish plate or bar U is provided with integral bosses V V', against which the points of the headed threaded bolts bear when they are turned up to hold the fish-bar in place. The pins T' do not fit the holes T so tightly as to prevent expansion and contraction of the rails under heat and cold, the entire chair being affected by heat and cold the same as the rails themselves are.

The chair rests on a single tie, so that there is no giving down under the weight of the train, as there would be were the chair rested on two adjoining ties. By using this chair a practically-continuous rail is provided.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the base-plate having the integral inclined cheek-piece at one side, and the threaded lugs at the other side upon its upper face, provided with half-recesses over their threaded bolt-holes, of the rails with pin-holes in their webs, the fish-bar with pins projecting into said holes, and bosses on its outer face, and the headed threaded bolts, and the key seated in the aligned recesses, substantially as specified.

2. The combination, with the base-plate having the integral inclined cheek-piece at one side and the threaded lugs at the other side, with half-recesses in their outer faces, of the headed screw-bolt with radial half-recesses in the inner face of its head, and the key fitting two registering half-recesses, substantially as specified.

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

HARVEY B. HALL.

Witnesses:

E. STEARNS,

A. S. MORRISON.