(No Model.) 2 Sheets—Sheet 1.

M. S. BOWNE & M. CLUNE.

RAILROAD CHAIR.

No. 422,180. Patented Feb. 25, 1890.

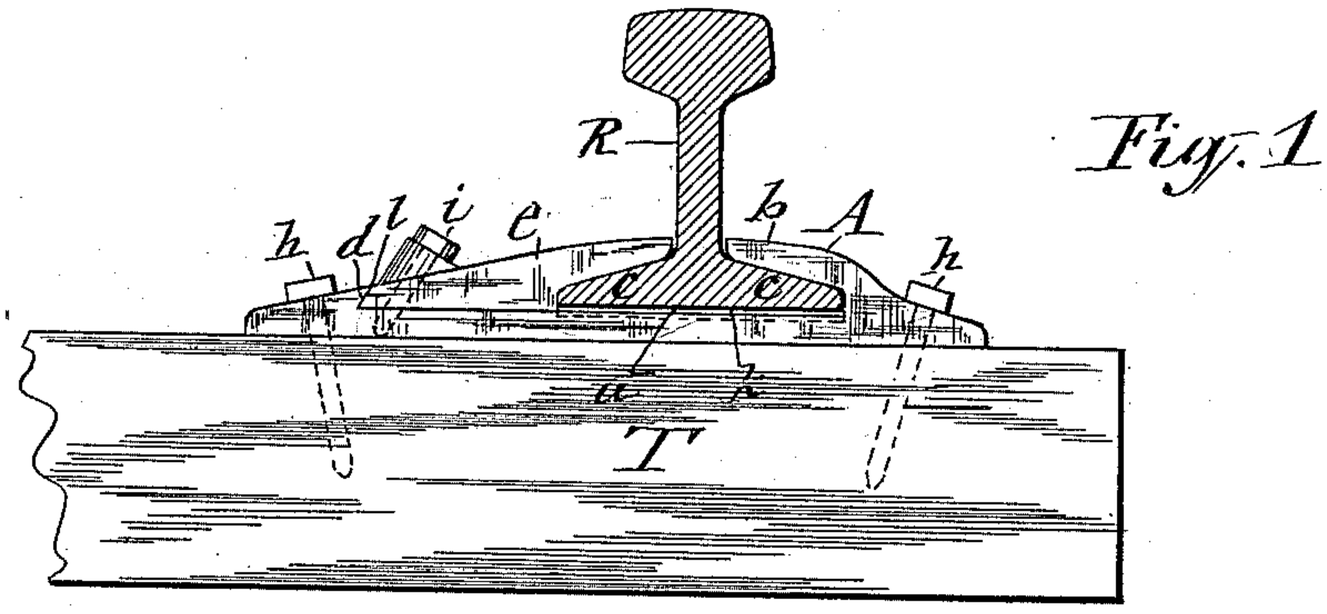


Fig. 1

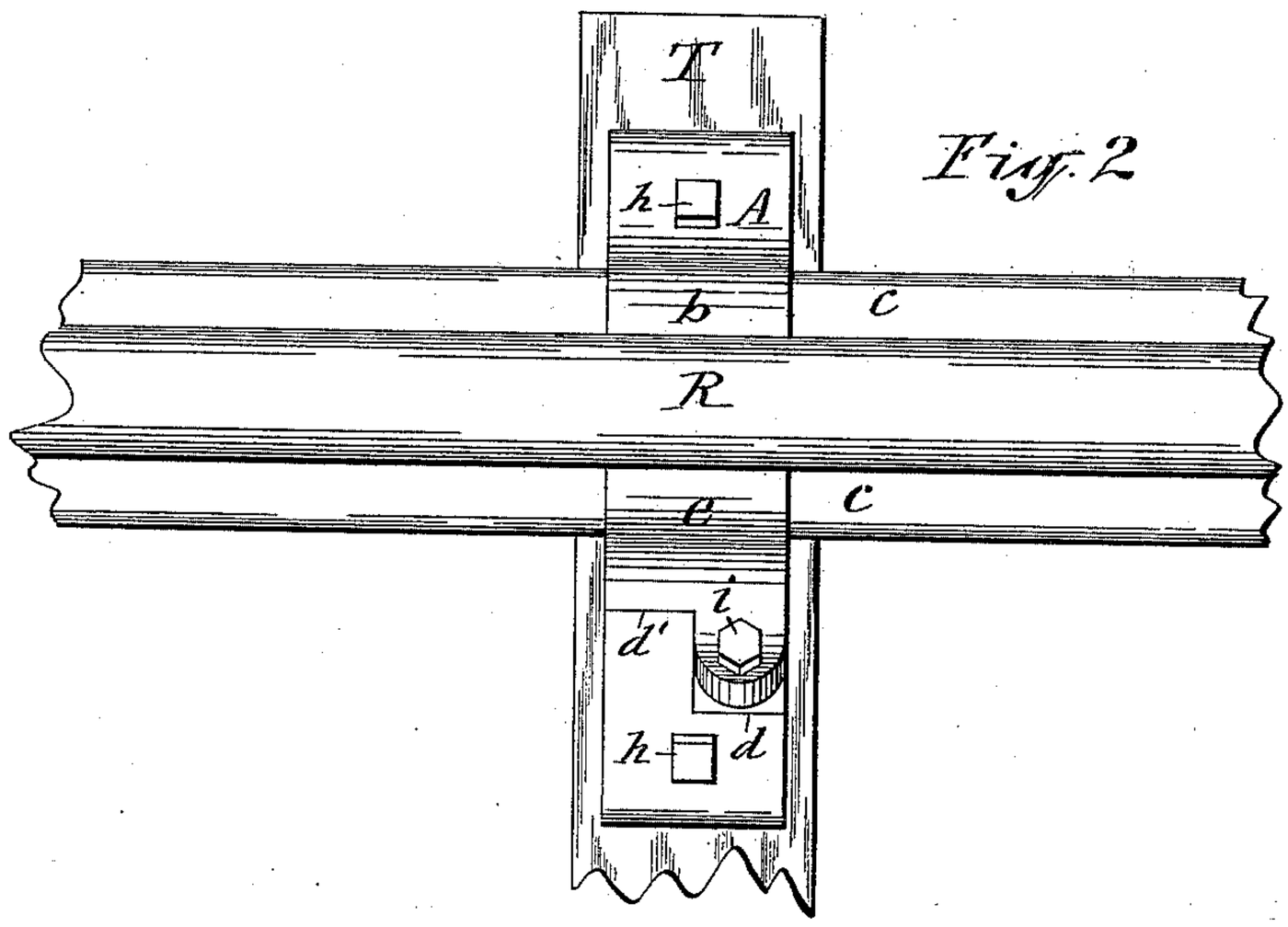
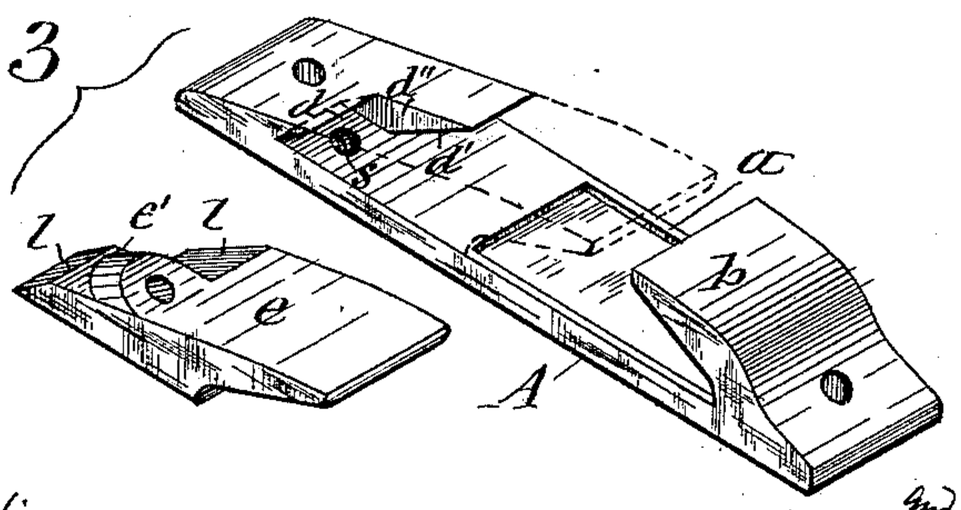


Fig. 2

Fig. 3



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

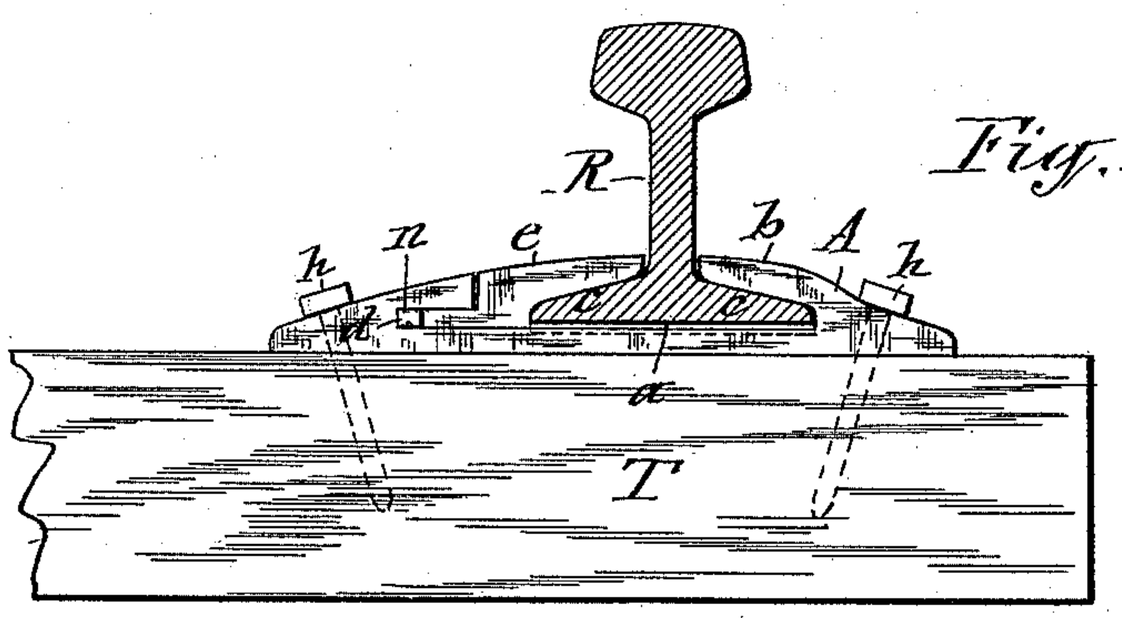


Fig. 5

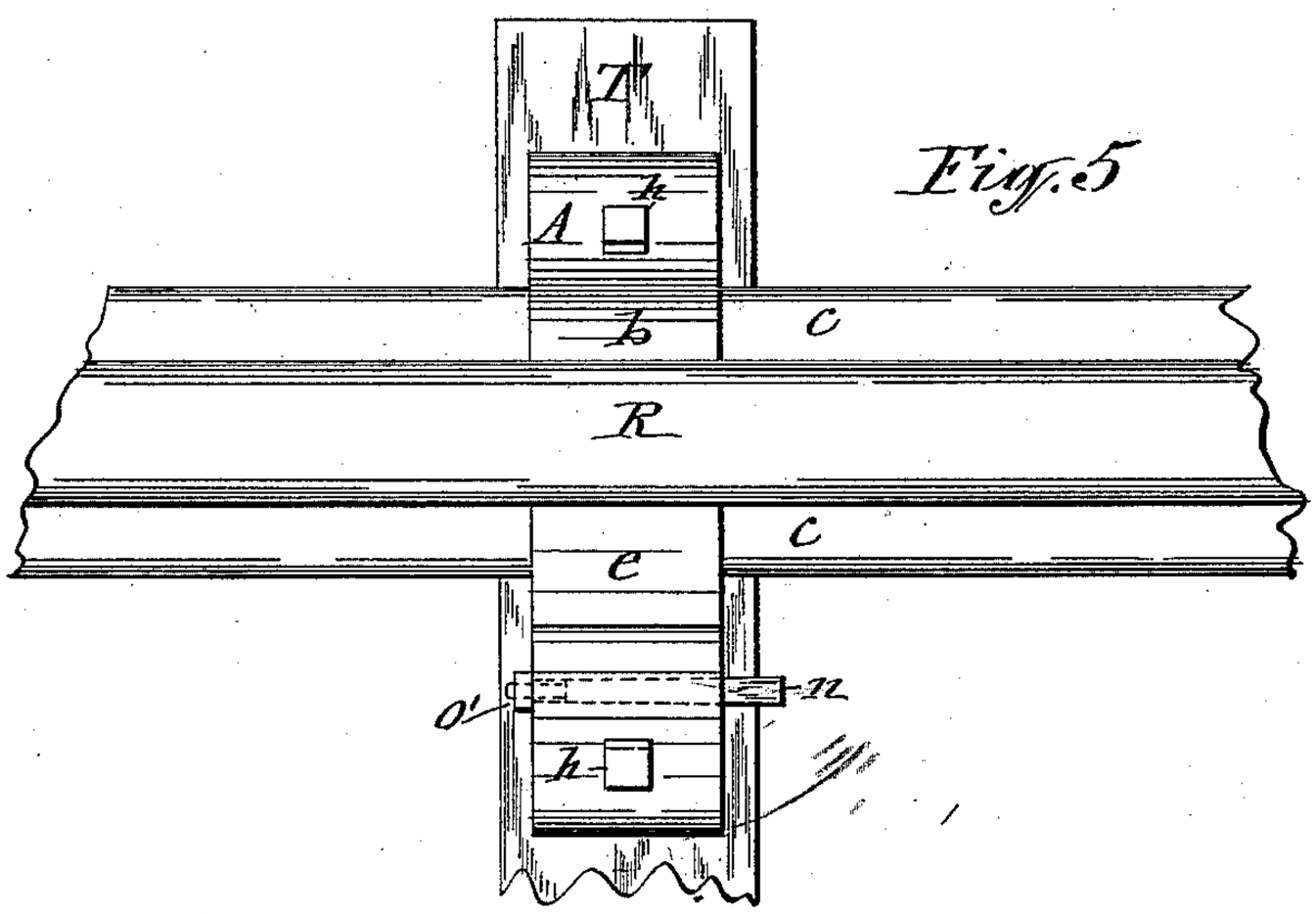
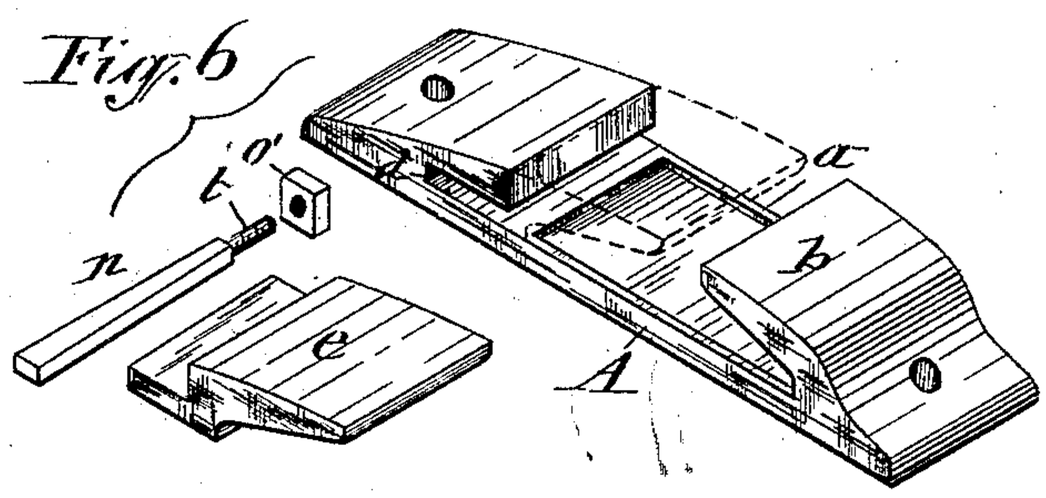


Fig. 6



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UNITED STATES PATENT OFFICE.

NEWTON S. BOWNE, OF HASTINGS CENTRE, AND MICHAEL CLUNE, OF EAST SYRACUSE, NEW YORK.

RAILROAD-CHAIR.

SPECIFICATION forming part of Letters Patent No. 422,180, dated February 25, 1890.

Application filed August 23, 1889. Serial No. 321,774. (No model.)

To all whom it may concern:

Be it known that we, NEWTON S. BOWNE, of Hastings Centre, in the county of Oswego, in the State of New York, and MICHAEL CLUNE, of East Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Railroad-Chairs, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the class of railroad-chairs which are formed with a seat for the base of the rail and are provided with lips or flanges gripping the flanges of the rail.

The invention consists in the improved construction and combination of parts, as hereinafter more fully described, and specifically set forth in the claim.

The invention is fully illustrated in the annexed drawings, in which—

Figure 1 is a vertical transverse section of a railroad-rail secured to the cross-tie by our improved chair. Fig. 2 is a top plan view of the same. Fig. 3 is a detached perspective view of the chair and detachable rail-gripping flange-block of the same. Figs. 4 and 5 are respectively end and plan views of a modification of our invention, and Fig. 6 is a perspective detail view of the components of said modification.

Similar letters of reference indicate corresponding parts.

R represents the railroad-rail, which is of the so-called "T" pattern, and A denotes our improved chair, by means of which the aforesaid rail is secured to the tie T. Said chair consists of a stout metal plate, which is formed with the seat *a* for the base of the rail R, and is provided with a permanently-fixed overhanging lip or flange *b*, preferably formed integral with the plate and across the chair at one side of the rail-seat and adapted to receive under its overhanging portion one of the flanges *c* of the rail and firmly grip said flange, as shown in Fig. 1 of the drawings.

At different distances from the opposite side of the rail-seat *a* the chair is formed with transverse shoulders *d d'*, which are undercut at the sides facing the rail-seat, and between the said shoulders and rail-seat is a flange-block *e*, which is detachably secured to the chair, and has beveled sides *l l* abutting against and interlocking with the shoulders, and grips by its flange the flange of the rail.

The described chair may be introduced between the rail and cross-tie and secured to said parts without entirely removing the rail from its position on the track by slipping the chair lengthwise of the rail underneath the same and onto the tie, then placing the chair in position so as to cause the rigid or integral lip or flange *b* to grip the flange of the rail, then slipping or driving the flange-block *e* lengthwise of the rail onto the chair between the rail and shoulders *d d'*, until the offset *e'* of the flange-block strikes the offset *d''* between the aforesaid shoulders, as shown in Fig. 2 of the drawings. Bolts or spikes *h h*, passing through the chair and into the tie, firmly secure the chair in its position.

In order to permit of tightening the flange-block, we employ a set-screw *i*, which passes through the flange-block and enters a socket *s* in the base of the chair, and by tightening said set-screw the flange-block *e* is drawn down onto the chair and made to more firmly grip the flange of the rail. However, we do not wish to be limited to the use of the set-screw *i*, inasmuch as tighteners of different forms may be employed, as shown in Figs. 4, 5, and 6 of the drawings, in which a wedge *n* is inserted between the abutting shoulder *d* and adjacent side of the flange-block *e*, in which case the said shoulder is extended straight across the entire width of the plate A, and the small end of the wedge terminates with a screw-threaded stem *t*, to which is applied a nut *o'*. By tightening said nut the wedge is caused to crowd the flange-block *e* toward the rail R.

If desired to cushion the rail, a rubber lining *k* may be inserted between the bottom of the rail and its seat on the chair, as shown in Fig. 1 of the drawings.

What we claim as our invention is—

The improved rail-chair consisting of the plate A, formed with the rail-seat *a*, permanent lip *b* at one side of the said rail-seat, un-

dercut shoulders *d d'* at the opposite side of said seat, and offset *d''* between said shoulders, the flange-block *e*, formed with a beveled side entering under the aforesaid shoulders and with the offset *e'*, and a bolt securing said block to the plate, substantially as described and shown.

In testimony whereof we have hereunto signed our names this 15th day of August, 1889.

NEWTON S. BOWNE. [L. S.]
MICHAEL CLUNE. [L. S.]

Witnesses:
C. H. DUELL,
MARK W. DEWEY.