(No Model.)

C. A. GILDEMEYER.

RAILWAY TIE.

No. 491,048. Patented Jan. 31, 1893.

FIG. 1.

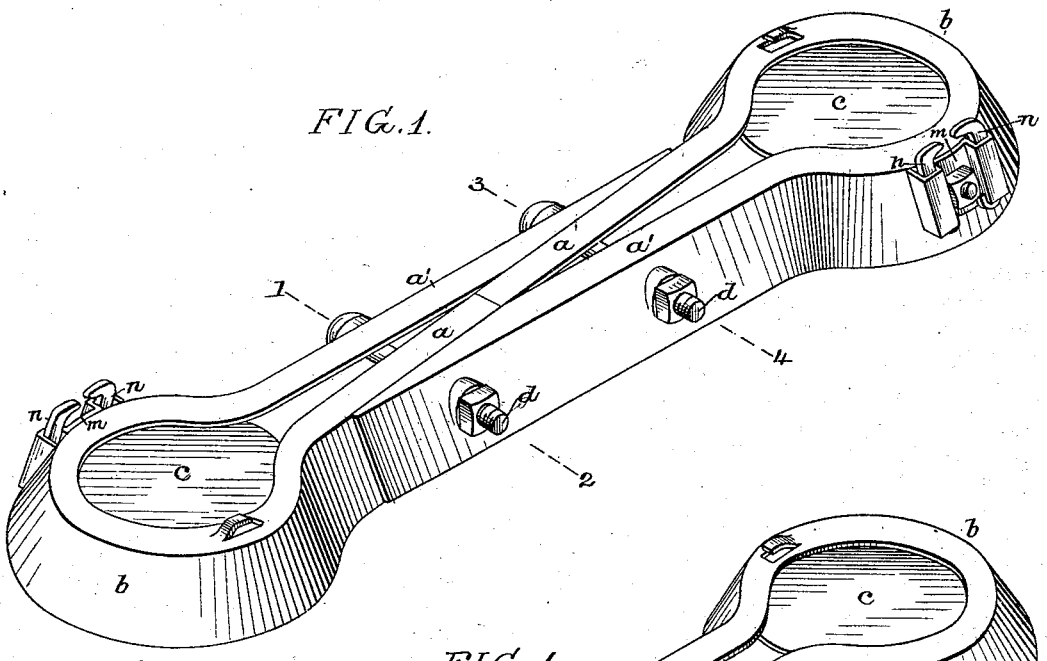


FIG. 4.

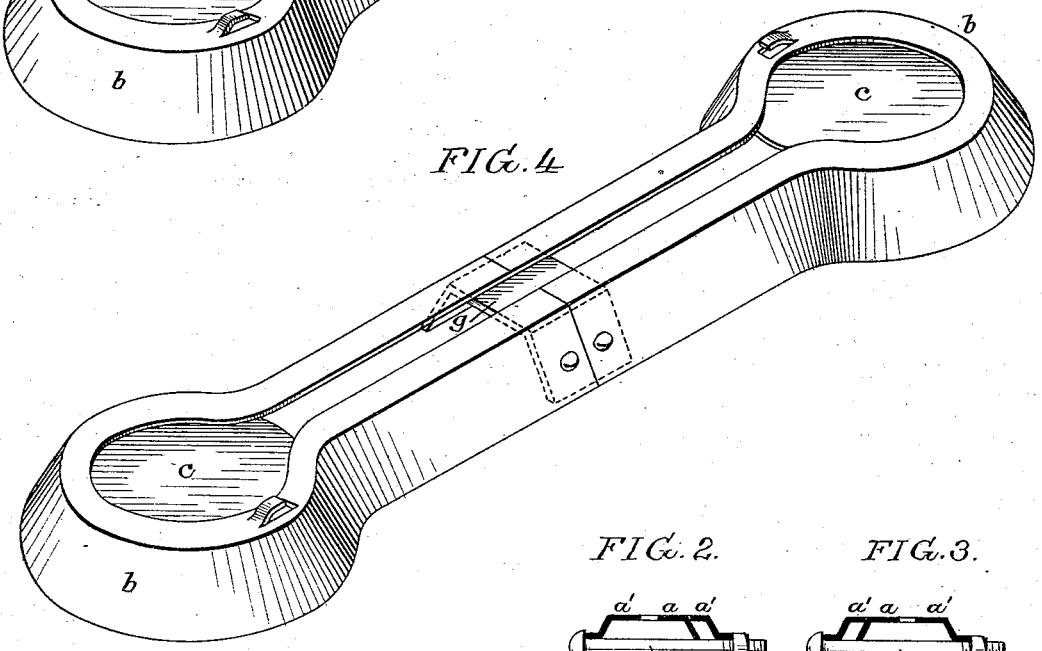
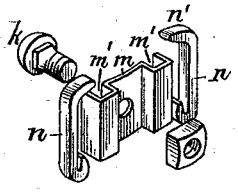


FIG. 2.

FIG. 3.

FIG. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES A. GILDEMEYER, OF HADDONFIELD, NEW JERSEY, ASSIGNOR OF ONE-HALF TO OSCAR TWITCHELL, OF SAME PLACE.

RAILWAY-TIE.

SPECIFICATION forming part of Letters Patent No. 491,048, dated January 31, 1893.

Application filed June 27, 1891. Serial No. 397,673. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. GILDEMEYER, a citizen of the United States, and a resident of Haddonfield, Camden county, New Jersey, have invented certain Improvements in Ties for Railways, of which the following is a specification.

The object of my invention is to construct of angle iron or steel a metallic railway cross tie which will be of simple and economical character as more fully set forth hereinafter.

In the accompanying drawings:—Figure 1, is a perspective view of a railway cross tie constructed in accordance with my invention; Fig. 2, is a sectional view of the same on the line 1—2, Fig. 2; Fig. 3, is a similar section on the line 3—4, Fig. 1; Fig. 4, is a perspective view illustrating a modification; and Fig. 5, is a detached perspective view of the device for securing the rail to the tie.

The cross tie is formed preferably of two sections of angle iron bent in the manner illustrated in Fig. 1, so that the shorter arms *a* will abut at or about the center of the tie and form a continuous or practically continuous bar extending diagonally across the tie while the longer arms *a'* extend on each side of the short arms and are tapered at the extreme ends so as to fit snugly against the short arms as shown.

The opposite ends of the tie are bent in any desired manner preferably so as to form enlarged or rounded portions *b* in which may be secured cover plates *c* to prevent the displacement of the ballast. The angle iron employed for this purpose is preferably so shaped as to have its flanges at an obtuse angle so that the tie will have inclined sides and will have a firmer seat than if the sides were in a vertical line. The two sections of the tie are locked together by transverse bolts *d* which extend through from side to side of the tie as shown in Figs. 2 and 3.

In Fig. 4, I have shown a modification of the tie illustrating another form of tie with rounded ends and the use of filling plates *c;* the two sides of this tie are substantially parallel, the opposite ends of the two sections of angle iron abutting at or about the center and being secured together by a cross piece *g*.

For the purpose of securing the rails to a tie of this character I employ a bent plate *m* having pockets *m'* for the reception of the body portion of two bolts *n n* having heads *n'* adapted to the base flange of the rail and grooved at their lower ends to embrace a portion of the lower edge of the bent plate *m;* a bolt *k* is employed to hold the plate in place in contact with the side of the tie as shown in Fig. 1.

A tie of this character may be readily tamped after the rails have been secured in place and after the ballast is in position, the inclined sides of the tie will, to a great extent, prevent the tie from being moved out of position, as will be readily understood.

Having thus described my invention, I claim and desire to secure by Letters Patent:—

1. A railway cross tie formed of two or more sections of angle iron bent into suitable shape and so disposed that the shorter arms of the bent portions will abut and form a bar extending diagonally across the tie, and overlapping longer arms extending substantially parallel to each other on either side of said diagonal bar, substantially as specified.

2. A railway cross tie formed of two or more sections of angle iron bent into suitable shape and so disposed that the shorter arms of the bent portions will abut and form a diagonally extending bar, and longer arms extending on either side of the diagonal bar, said longer arms being tapered at their extreme ends to fit snugly against said diagonal bar, with transverse bolts for securing the sections together, substantially as specified.

3. A railway tie formed of angle iron and having enlarged end portions, with covering plates adapted to fit within such enlarged end portions, below the upper flange of the angle iron substantially as specified.

4. The combination in a cross tie made of angle iron having an inclined body portion and an internal flange extending around the upper edge, with covering plates for the open-

ing formed between the flanges, substantially as specified.

5. The combination of the tie, the rail, a bent plate having bolt receiving pockets, headed bolts adapted to said pockets, the heads of said bolts being adapted to engage with the lower flange of the rail, and a securing bolt for holding said plate to the side of the tie, substantially as specified.

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

CHARLES A. GILDEMEYER.

Witnesses:
HENRY HOWSON,
HARRY SMITH.