No. 862,217. PATENTED AUG. 6, 1907.

H. L. TOPPIN.

COMBINED RAIL CHAIR AND JOINT.

APPLICATION FILED MAR. 19, 1907.

Fig. 1

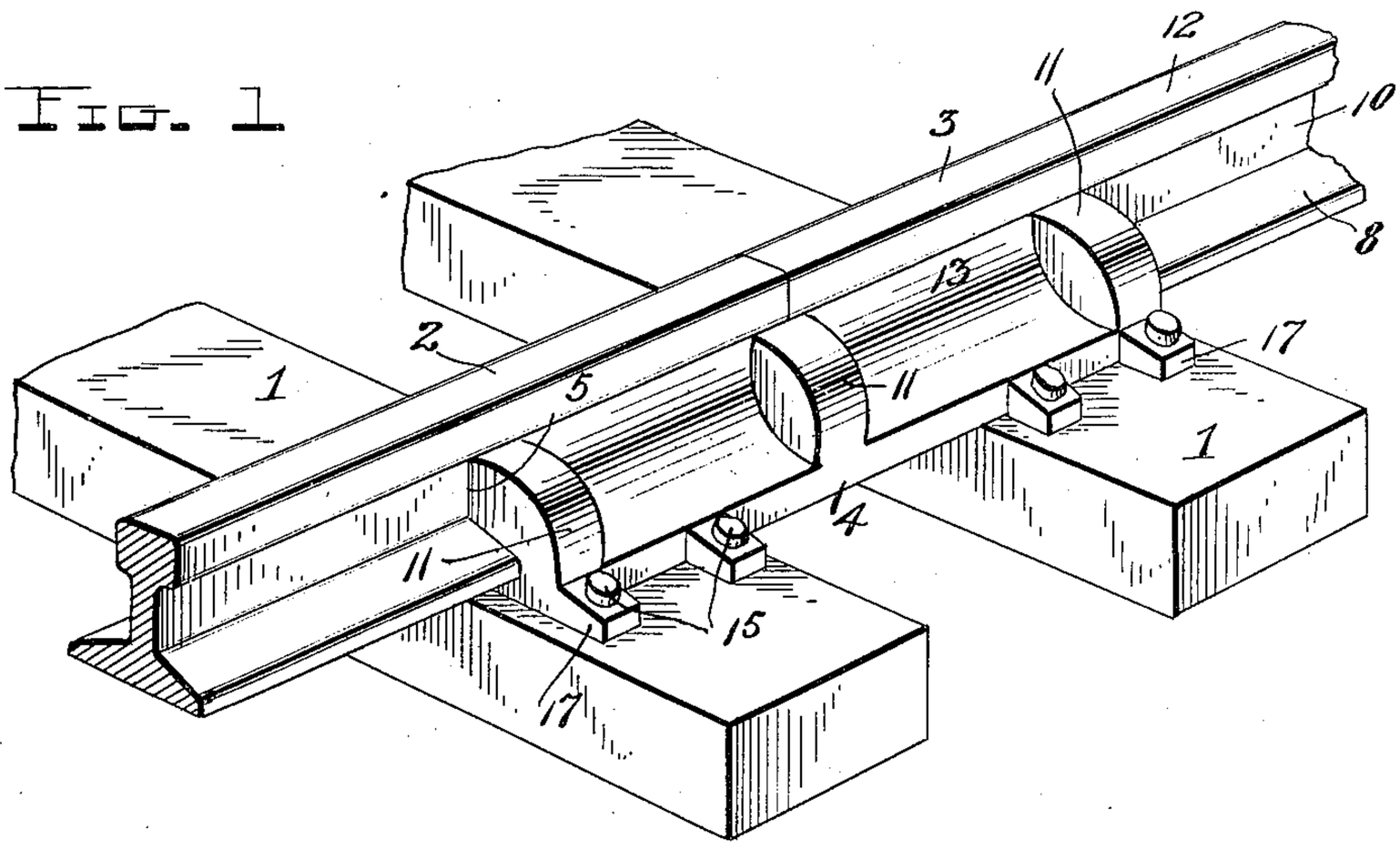


Fig. 2

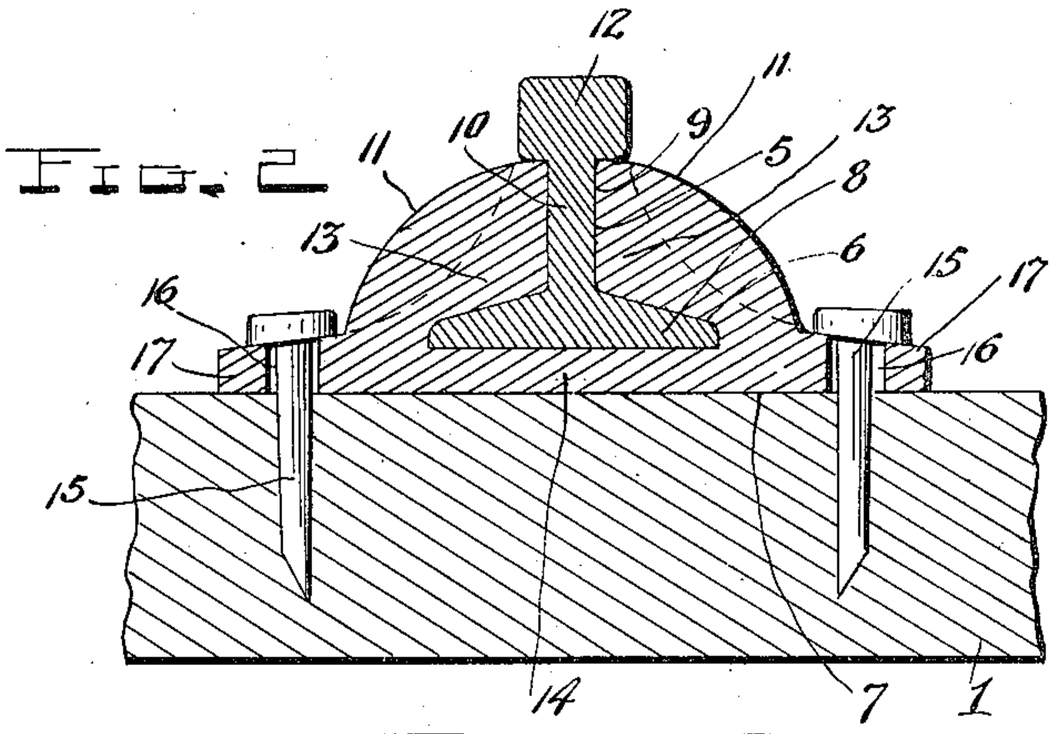
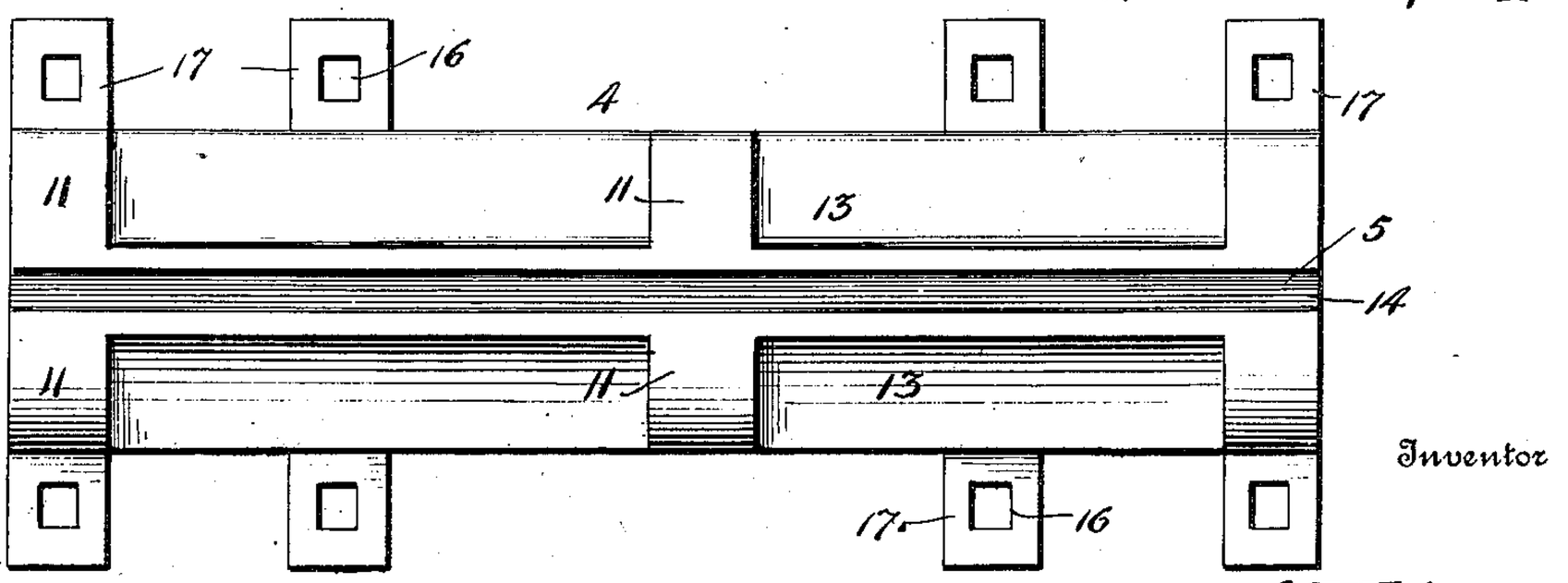


Fig. 3



Witnesses
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HARVEY LAMPSON TOPPIN, OF NEW CASTLE, DELAWARE.

COMBINED RAIL CHAIR AND JOINT.

No. 862,217. Specification of Letters Patent. Patented Aug. 6, 1907.

Application filed March 19, 1907. Serial No. 363,196.

To all whom it may concern:

Be it known that I, HARVEY LAMPSON TOPPIN, a citizen of the United States, residing at New Castle, in the county of Newcastle and State of Delaware, have invented certain new and useful Improvements in a Combined Rail Chair and Joint, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention is an improved combination rail chair and joint and consists in the novel features hereinafter described and claimed.

The object of the invention is to provide a device of this character which will securely fasten the meeting ends of two track rails upon the cross ties and which will be of simple, strong, durable and comparatively inexpensive construction.

The above and other objects are accomplished by the improved construction illustrated in the accompanying drawings, in which

Figure 1 is a perspective view of the invention showing it in use for securing the meeting ends of two track rails upon two cross ties; Fig. 2 is a vertical transverse section; and Fig. 3 is a top plan view of the joint chair.

Referring to the drawings by numeral, 1 denotes the ordinary wooden cross ties, and 2, 3 the meeting ends of two ordinary T-shaped track rails which are secured together and upon the cross ties by my improved joint chair 4. The latter is in the form of a metal body cast in a single piece, and extending centrally and longitudinally through it is a T-shaped channel 5 for the reception of the meeting ends of the two rails. The horizontal or cross portion 6 of the channel 5 is arranged parallel with the flat bottom 7 of the body 4 and is adapted to receive the base flanges 8 of the track rails; and the vertical portion 9 of the channel 5 is adapted to receive the webs 10 of the track rails. The formation of the channel 5 provides opposing integral fish plates 13 which snugly engage the opposite faces of the web and base flanges of the rail and effectively hold the two rails in longitudinal alinement so that one cannot shift laterally with respect to the other. These fish plates or flanges 13 also hold the rails against vertical movement and retain their base flanges 8 upon the bottom or base plate 14 of the body or chair. The upper edges of the fish plates or flanges 13 engage the bottom of the head 12 of the rails and upon the outer concave faces of said plates or flanges are formed integral braces 11 which latter have curved outer faces, as shown. These braces greatly strengthen the fish plates or flanges and effectively prevent them from springing outwardly away from the track rails. The flat bottom 7 of the body or chair 4 is secured upon the two adjacent cross ties 1 by spikes or similar fastenings 15 driven through vertical apertures 16 formed in lugs 17 which are formed integral with the body 4 and project outwardly from the same upon its opposite sides. I preferably employ four of the lugs 7 upon each side of the body or chair and arrange them in pairs as shown so that each pair engages the top of one of the ties.

From the foregoing description taken in connection with the accompanying drawings, it is thought that the construction, use and advantages of the invention will be readily understood without a more extended explanation.

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

The herein described rail joint comprising two cross ties, the meeting ends of the two T-shaped track rails, the joint chair 4 to span the space between said ties and rest upon the tops thereof, said chair being cast in a single piece and having a body formed with a centrally disposed longitudinally extending T-shaped channel to receive the webs and base flanges of said rails, said channel forming in the body opposing integral fish plates or flanges which snugly fit the opposite faces of the webs and base flanges of the rails and which have their upper edges engaging the bottom of the heads of said rails, the outer faces of said integral fish plates being concave and formed at their ends and at their centers with integral transversely projecting braces 11, said braces having curved outer faces and the ones at the center of the chair being disposed at the abutting ends of the rails, said T-shaped channel in the chair also forming an integral base plate to engage the bottom of the base of the rails, and outwardly projecting lugs formed integral with the base plate of the chair at its outer edges and adjacent to its end, said lugs being adapted to rest upon the tops of the ties and being formed with vertical apertures and spikes driven through the apertures in said lugs and into said ties, substantially as shown and described.

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

HARVEY LAMPSON TOPPIN.

Witnesses:

SAMUEL ETCHELLS,

MATTHEW TOBIN.