

No. 850,542.

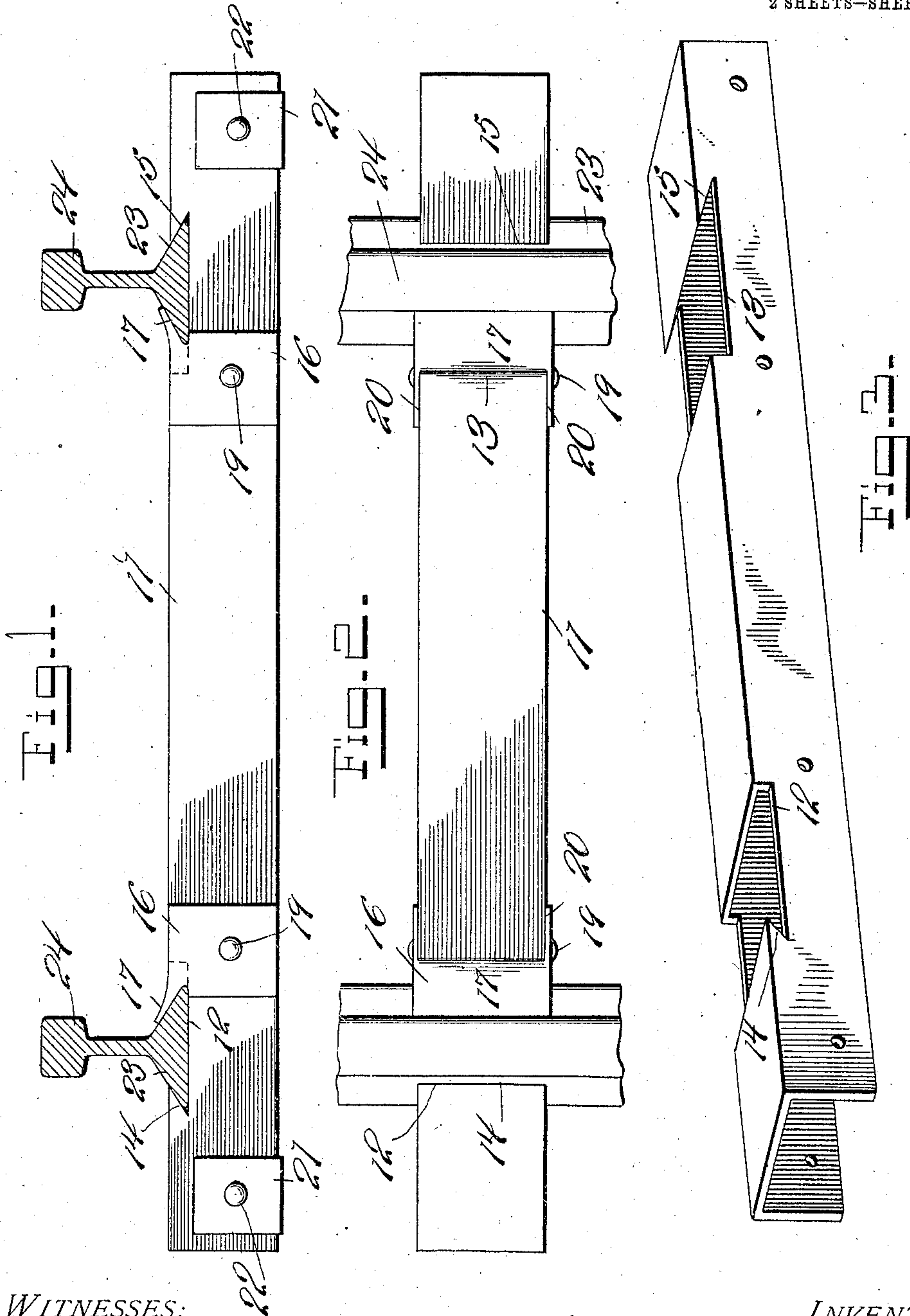
PATENTED APR. 16, 1907.

J. W. PEPLOE.

CROSS TIE.

APPLICATION FILED AUG. 30, 1906.

2 SHEETS—SHEET 1.



WITNESSES:

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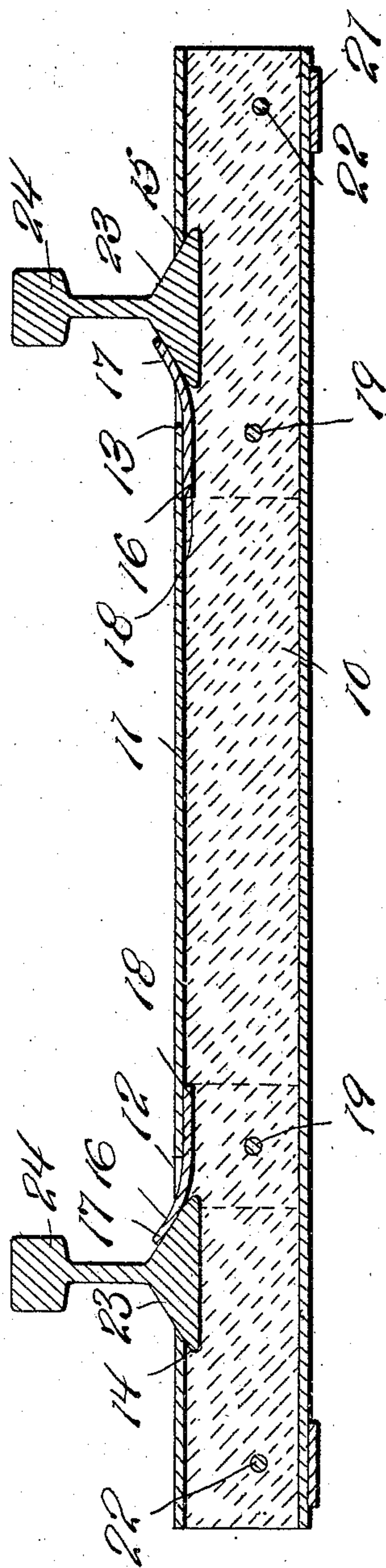
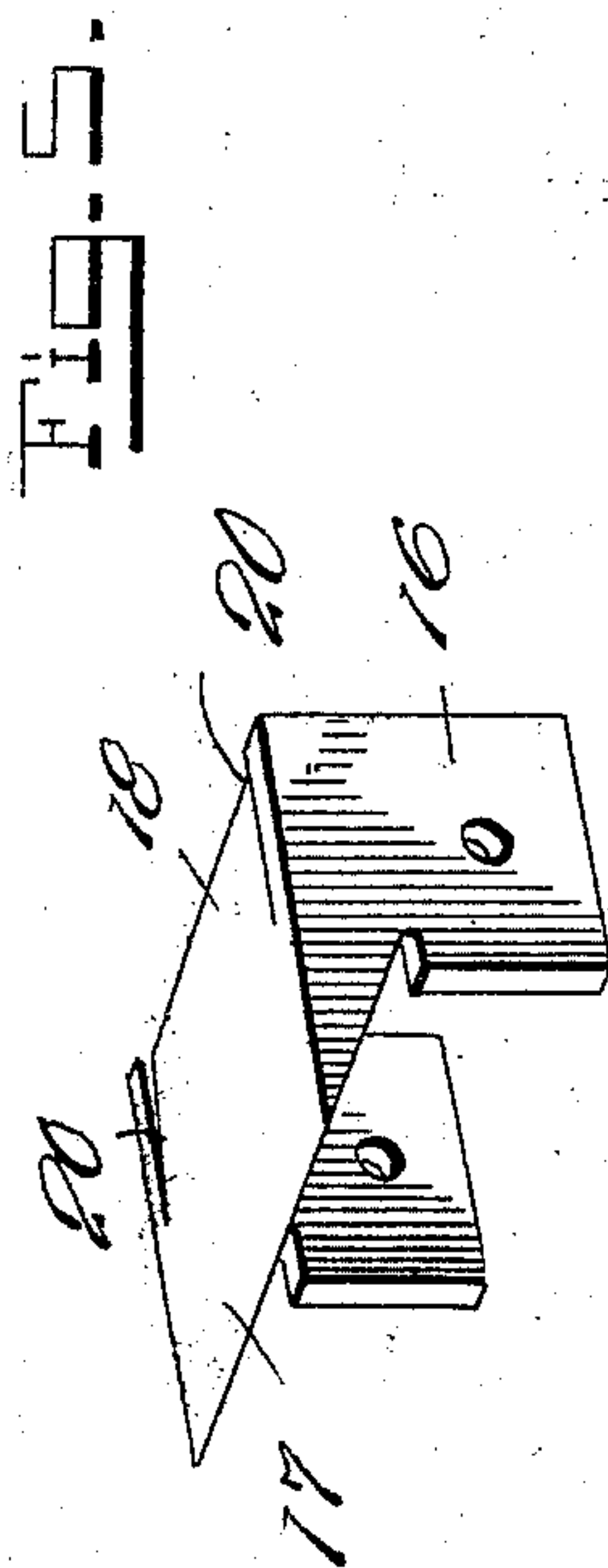
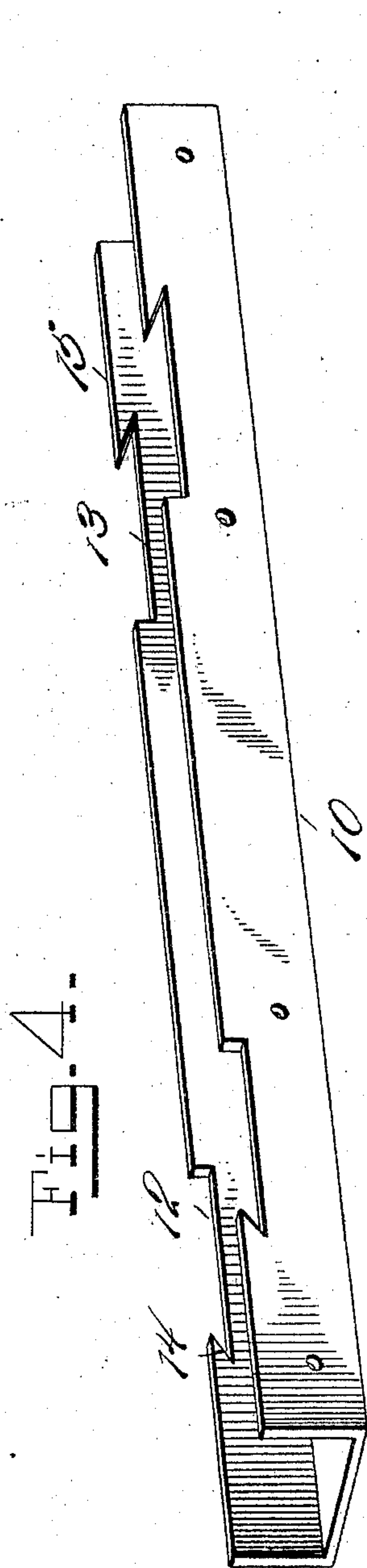
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JOHN WM. PEPLOE, OF LONG ISLAND CITY, NEW YORK.

CROSS-TIE.

No. 850,542.

Specification of Letters Patent.

Patented April 16, 1907.

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To all whom it may concern:

Be it known that I, JOHN WM. PEPLOE, a citizen of the United States, residing at Long Island City, in the county of Queens, State of New York, have invented certain new and useful Improvements in Cross-Ties; and I do hereby 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.

This invention relates to improvements in cross-ties, and has for its object to increase their efficiency, strength, and durability and to provide effective means for detachably connecting the rails to the same.

The particular improvements consist in the construction of the tie in shell form, comprising inner and outer members, and in the formation of rail-receiving recesses in the upper side edges of the members.

Further improvements consist in the provision of a cheek-piece to retain each rail in place in its recess.

With the above and other ends in view the invention consists in the construction, combination, and arrangement of parts, all as hereinafter fully described, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a cross-tie constructed in accordance with this invention. Fig. 2 is a top plan view of the same. Fig. 3 is a perspective view of the outer shell member. Fig. 4 is a similar view of the inner shell member. Fig. 5 is a perspective view of one of the cheek-pieces. Fig. 6 is a longitudinal vertical section taken centrally through Fig. 2.

Like parts are designated by corresponding numerals in the several views.

Referring to the drawings, the tie-shell comprises a metallic inner member 10 of U shape and a similar outer member 11 of inverted-U shape, inclosing the inner member. The shell may therefore be regarded as of approximately rectangular formation, the top of the outer member forming the shell-top and the bottom of the inner member the shell-bottom, the shell sides being each doubled and formed by the sides of the inner and outer members.

Each member is provided at opposite ends with a pair of rail-receiving recesses 12 and 13, respectively, said recesses being formed in the upper side edges of said members and having their outer ends extended forwardly

to form the rearwardly-inclined shoulders 14 and 15. The recesses in the outer member 11 extend transversely across the upper face of said member, as shown. The several recesses in the respective ends of said members are similar in extent and are in alinement with each other, thus forming a single continuous transverse slot or seat at each end of the tie.

Secured to member 11 adjacent the inner end of each set of recesses is a cheek-piece 16, formed of a single sheet of metal and provided with a forwardly-extending shoulder 17 at its upper front edge and a rearwardly-extending tongue 18 at its corresponding rear or inner edge. As shown in Figs. 1, 2, and 6, each cheek-piece is so mounted upon the tie as to straddle the outer member and is secured thereto by a bolt 19, passing through each side thereof and through the corresponding side of the inner member. It is further shown in said figures that the shoulder 17 of each cheek-piece is oppositely disposed with respect to the corresponding shoulders 14 and 15, respectively, of the tie members and that the tongue 18 of each cheek-piece bears against the under face of the top of the outer member, thus serving to hold the said cheek-pieces more firmly in place, the metal of which said cheek-pieces are formed being sufficiently resilient to exercise an upward pressure upon the said under face of the top of the upper member for such purpose.

As above stated, the cheek-pieces are each formed from a single strip of sheet metal bent into the shape shown in Fig. 5, the tongue of each cheek-piece being formed by means of the longitudinal slots 20. Each cheek-piece, as shown, straddles the outer member 11 of the tie, its shoulder 17 extending forwardly longitudinally of the tie part way along the corresponding rail-seat and its tongue 18 in like manner extending rearwardly and bearing against the under face of the top of the outer member. The cheek-pieces are, moreover, oppositely disposed with respect to each other, as shown.

The inner and outer members are connected together by means of straps 21, embracing the sides of the outer member 11 and passing along the under face of the inner member 10, said straps being provided with registering openings through which headed bolts 22 are passed, thus holding the tie members firmly in place together with their corresponding rail-recesses in alinement. The interior of

the shell formed by said inner member is in practice filled with a plastic material, preferably cement, as is usual.

In use the lower flanges 23 of the rails 24 fit under the respective shoulders 14 and 17 and 15 and 17 and will be held firmly in place upon the ties in their seats therein, owing to the opposite inclination of said shoulders, and any accidental displacement or movement of the rails will be positively prevented.

The construction and general arrangement and operation of the invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings, without requiring an extended explanation.

While the invention in question has been described as comprising a cement-filled shell, it is obvious that the ordinary wooden tie may be inserted within the shell with its upper face undercut to correspond with the recesses in the shell members and assist in forming the rail-seats, and it will be likewise obvious that the arrangement of the shoulders in the shell members and cheek-pieces may be reversed with respect to the construction shown. The number of connecting-straps 21 may be increased at will, and the entire invention may in other ways be changed in its minor details without departing from its spirit or sacrificing any of its advantages. It is therefore not intended that the invention be limited to the exact details of construction shown and described.

What is claimed is—

1. A cross-tie comprising a shell composed of an inner member; an outer member surrounding said inner member; said members being formed with alining rail-receiving recesses; means for connecting said members; and means secured to said members for retaining the rails in said recesses.

2. A cross-tie comprising a shell composed of an inner member formed with a pair of rail-receiving recesses in its sides; an outer member inclosing said inner member and provided with a pair of rail-receiving recesses similar to and in alinement with the recesses in said inner member; means for connecting said members; and a cheek-piece secured to said outer member adjacent each pair of alining recesses to retain a rail in place therein.

3. A cross-tie comprising a shell having a U-shaped inner member; an inverted-U-shaped outer member inclosing said inner member; said members being provided at each end with alining rail-receiving recesses; means for connecting said members; and means secured to said outer member adjacent each pair of recesses for retaining a rail in place therein.

4. A cross-tie comprising inner and outer members each formed with a rail-receiving

recess at its opposite ends, the corresponding recesses of said members being in alinement with each other; means for connecting said members; and a pair of cheek-pieces of inverted-U shape secured to said outer member adjacent each pair of recesses for retaining a rail in place thereon.

5. A cross-tie comprising inner and outer members, each formed with a rail-receiving recess at its opposite ends, the corresponding recesses of said members being in alinement with each other, and extending forwardly at their outer ends to form inclined shoulders in said members; means for connecting said members; and a pair of cheek-pieces secured to said outer member adjacent each pair of recesses, each cheek-piece being provided with an inclined shoulder cooperating with the shoulder formed by the corresponding pair of recesses, to retain a rail in place therein.

6. A cross-tie comprising a U-shaped inner member; an outer member of inverted-U shape inclosing said inner member, said members being provided at each end with a pair of alining rail-receiving recesses, the outer end of each pair of recesses being extended forwardly to form rearwardly-inclined shoulders; means for connecting said members; and a pair of cheek-pieces of inverted-U shape secured to said outer member adjacent each pair of corresponding recesses, each cheek-piece being provided with a forwardly-inclined shoulder cooperating with the shoulder formed by the corresponding pair of recesses, to retain a rail in place therein.

7. A cross-tie formed on its upper face with a pair of rail-receiving recesses provided with rearwardly-inclined shoulders; and a cheek-piece secured to said cross-tie adjacent each recess, and provided with a forwardly-inclined shoulder cooperating with the shoulder formed by each recess to retain a rail in place therein.

8. A cross-tie comprising inner and outer members, each formed with a rail-receiving recess at opposite ends, the corresponding recesses of said members being in alinement; means for connecting said members; and a cheek-piece secured to said outer member adjacent each pair of alining recesses, each cheek-piece having a rearwardly-extending tongue adapted to fit against the under face of the outer member, and a forwardly-extending shoulder projecting longitudinally of said pairs of recesses, to retain a rail in place therein.

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

JOHN WM. PEPLOE.

Witnesses:

ERNEST W. STUBBINGS,
PATRICK JOYCE.