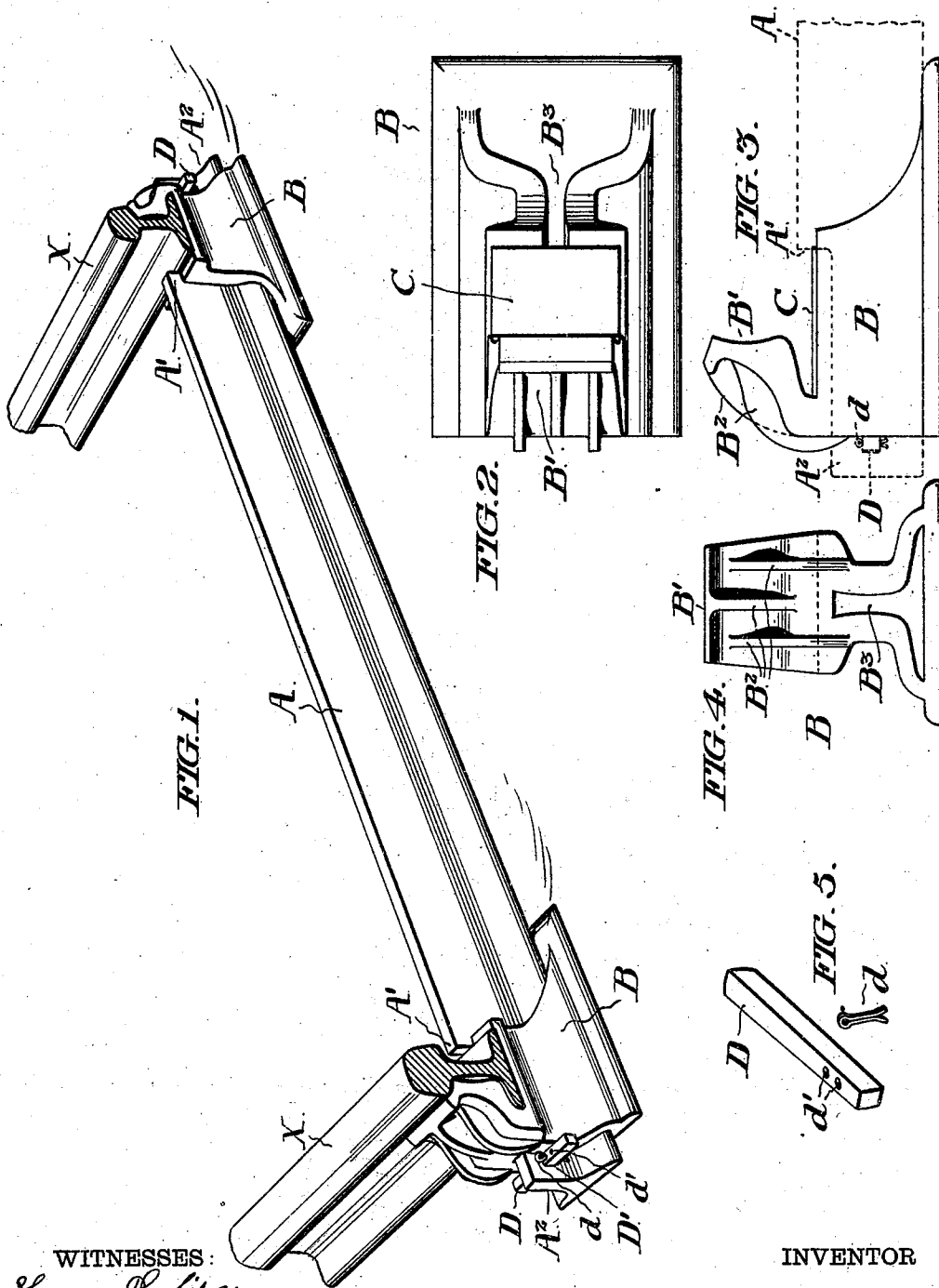


(No Model.)

C. B. MACNEAL.
METALLIC RAILWAY TIE OR SLEEPER.

No. 503,054.

Patented Aug. 8, 1893.



WITNESSES:

Harry D. Silver
James D. Dunsen

INVENTOR

Charles B. Macneal

UNITED STATES PATENT OFFICE.

CHARLES B. MACNEAL, OF PHILADELPHIA, PENNSYLVANIA.

METALLIC RAILWAY TIE OR SLEEPER.

SPECIFICATION forming part of Letters Patent No. 503,054, dated August 8, 1893.

Application filed April 29, 1893. Serial No. 472,433. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. MACNEAL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Railway Ties or Sleepers; 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 the letters of reference marked thereon, which form a part of this specification.

15 The object of my invention is to impart increased facility in the adjustment of the track rails, and simplicity and cheapness in the construction of railway ties or sleepers of the character described in Letters Patent granted
20 to me on the 20th day of September, 1892, No. 482,967. I attain this object by combining end pieces having upper surfaces provided with projecting ribbed overhanging braces to engage the outer flange of a rail and their
25 bodies having a penetrable inverted T shaped slot, with a cross piece of an inverted T shaped cross section, the ends of which are received into the slots, and protrude through the end pieces. The said cross piece is provided with offsets, a substantial distance from
30 its ends, to engage the inner flange of the rail and is furnished with holes, contiguous to its ends adapted to receive a key or pin to connect the cross piece and end pieces together,
35 and at the same time lock the track rails securely in place at the proper gage without the use of bolts or nuts. The upper surfaces of the end pieces may be furnished with rabbets to receive felt, wood or other suitable material
40 as rests for the bottoms of the track rails.

In the drawings, Figure 1 is a perspective view of my improved railway tie or sleeper. Fig. 2 is a plan view of the end piece B, and Fig. 3 is a side view of the same. Fig. 4 is an
45 end view of the end piece B, showing the inverted T shaped slot B³ and the projecting ribs B² of the overhanging brace piece B'. Fig. 5 shows the securing key D furnished with holes d' to receive the split pin d.

50 A is the cross piece.

A' is the offset at each end of the cross piece

A, adapted to engage the inner flange of the track rail X.

A² is the protruding end of the cross piece A. B are the end pieces, which are provided
55 with inverted T shaped slots B³.

B' is the ribbed overhanging brace upon the upper surface of the end piece B, adapted to engage the outer flange of the track rails X.

B² are the projecting ribs of the overhang-
60 ing brace piece B' of the end piece B.

X are the track rails, resting on the flat upper surface of the end pieces B B. The upper surfaces of the pieces B B may be formed with rabbets to receive rests C of felt, wood
65 or other suitable material.

D is the securing key adapted to fit into the hole D' at the end of the cross piece A.

d' are holes in the key D, adapted to receive the split pin d to keep the key D in place.
70

When the parts are put together, the track rail "X" is clamped between the ribbed brace "B'" of the end piece on its outer side and the offset "A'" of the cross piece "A" on its inner side, the parts "B'" and "A'" fitting
75 snugly over the outer and inner flanges of the rail respectively. The track rail is thus firmly clamped in place. The key "D" is driven into the hole "D'" and the parts are securely locked together and the rail secured at the
80 proper gage without the use of bolts and nuts.

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

1. In a metallic railway tie or sleeper the combination of end portions having overhang-
85 ing projecting ribbed braces upon their upper surfaces, with a cross piece of an inverted T shaped cross section adapted for connection at its ends with the end portions, as specified.

2. In a metallic railway tie or sleeper the
90 combination of end portions having projecting ribbed overhanging braces upon their upper surfaces, an inverted T shaped slot through their bodies with a connecting inverted T shaped cross piece having offsets a
95 substantial distance from its ends adapted to engage the inner flange of a rail, as specified.

3. In a metallic railway tie or sleeper the combination of the end portions having their
100 bodies provided with a penetrable inverted T shaped slot, with the connecting inverted T shaped cross section adapted at its ends to

fit into and protrude through the slots of the
end portions and provided contiguous to its
ends with a hole adapted to receive a key or
pin to secure the end portions and cross piece
5 together as specified.

4. In a metallic railway tie or sleeper, the
combination of the rails, the inverted T shaped
slotted end portions, the inverted T shaped
cross section, with a pin or key to secure the

end portions and cross piece together and to
lock the rails in place at the proper gage, as
specified.

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

CHARLES B. MACNEAL.

Witnesses:

EDWIN C. BRYAN,
GEO. W. REED.