

No. 871,658.

PATENTED NOV. 19, 1907.

L. M. WRIGHT.
METALLIC RAILWAY TIE.
APPLICATION FILED JAN. 31, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

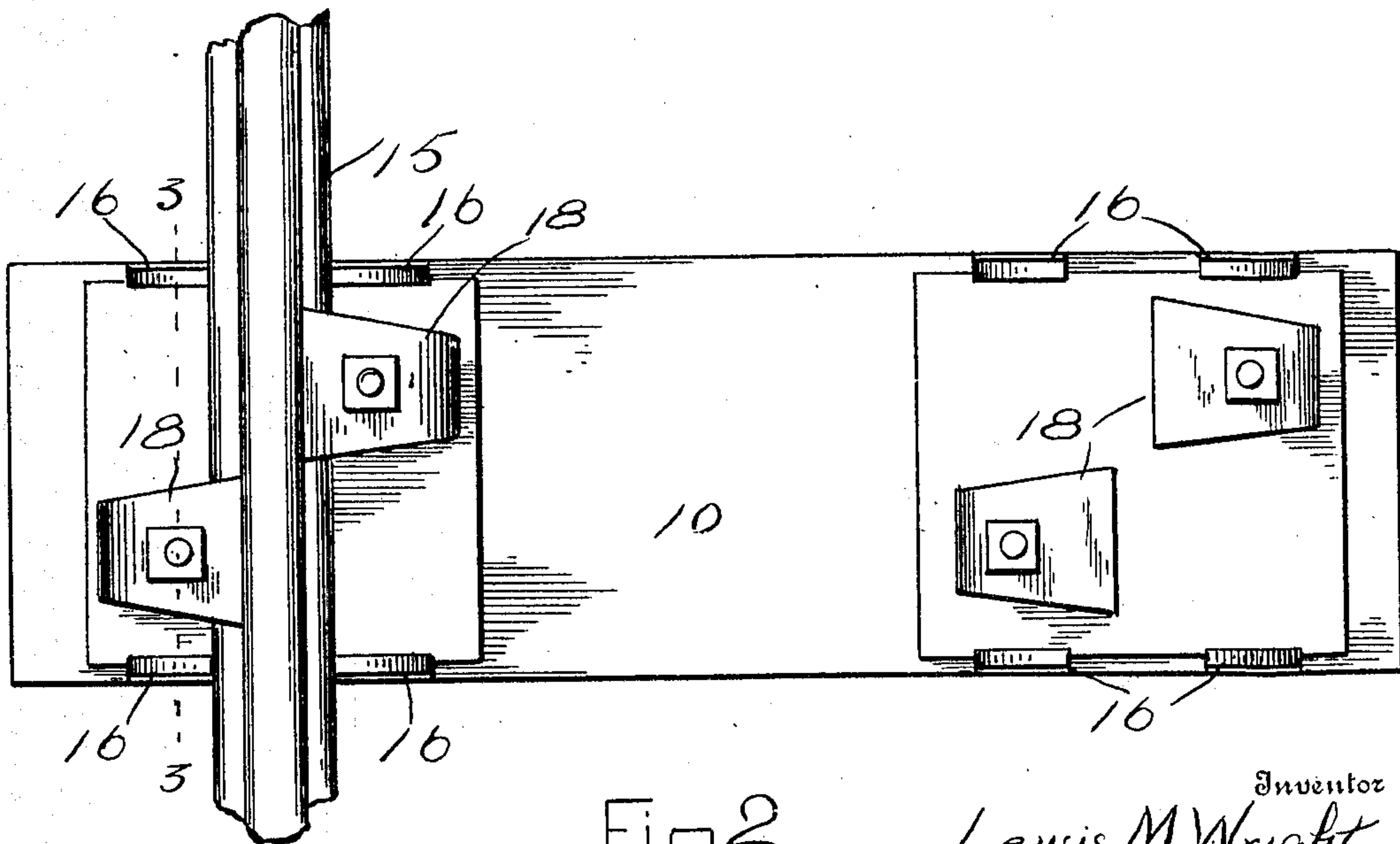
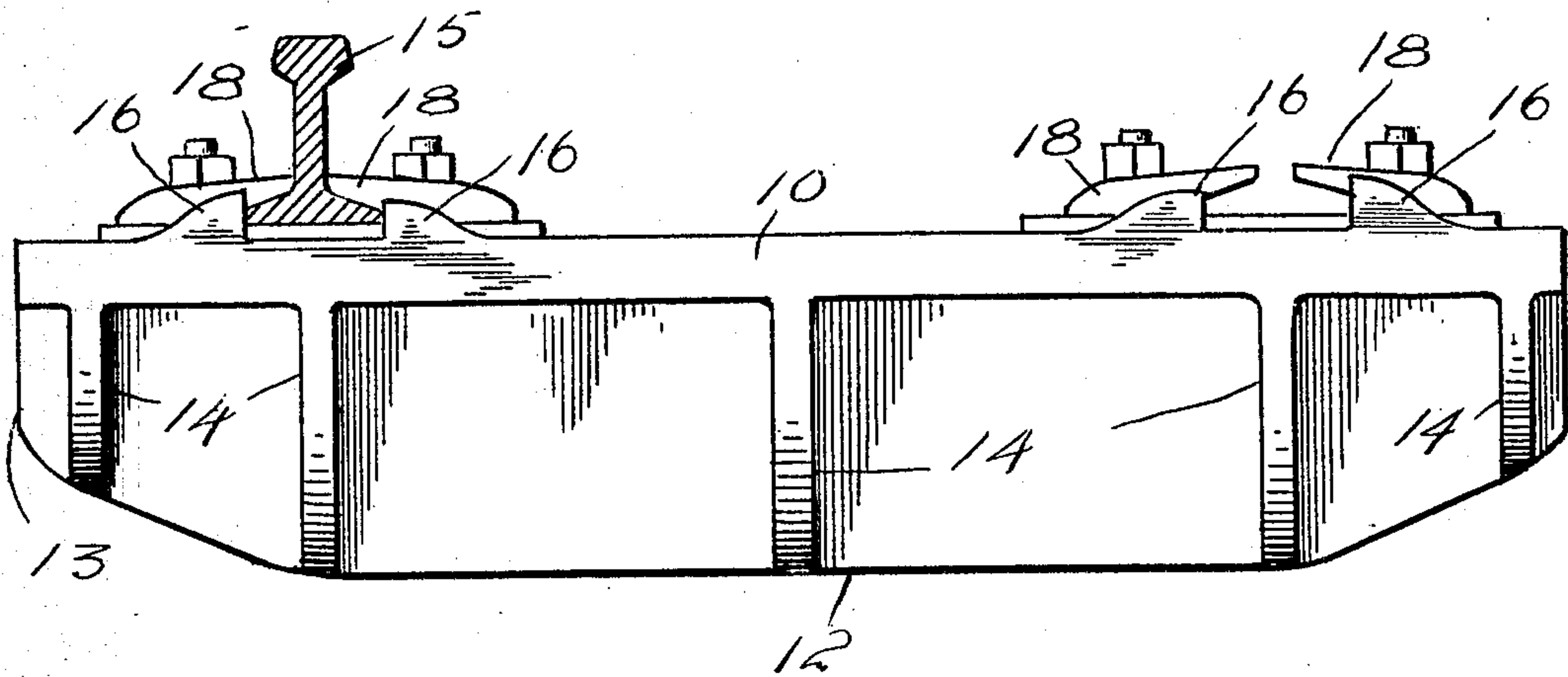


Fig. 2.

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Witnesses

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By

[Signature]

Attorney

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2 SHEETS—SHEET 2.

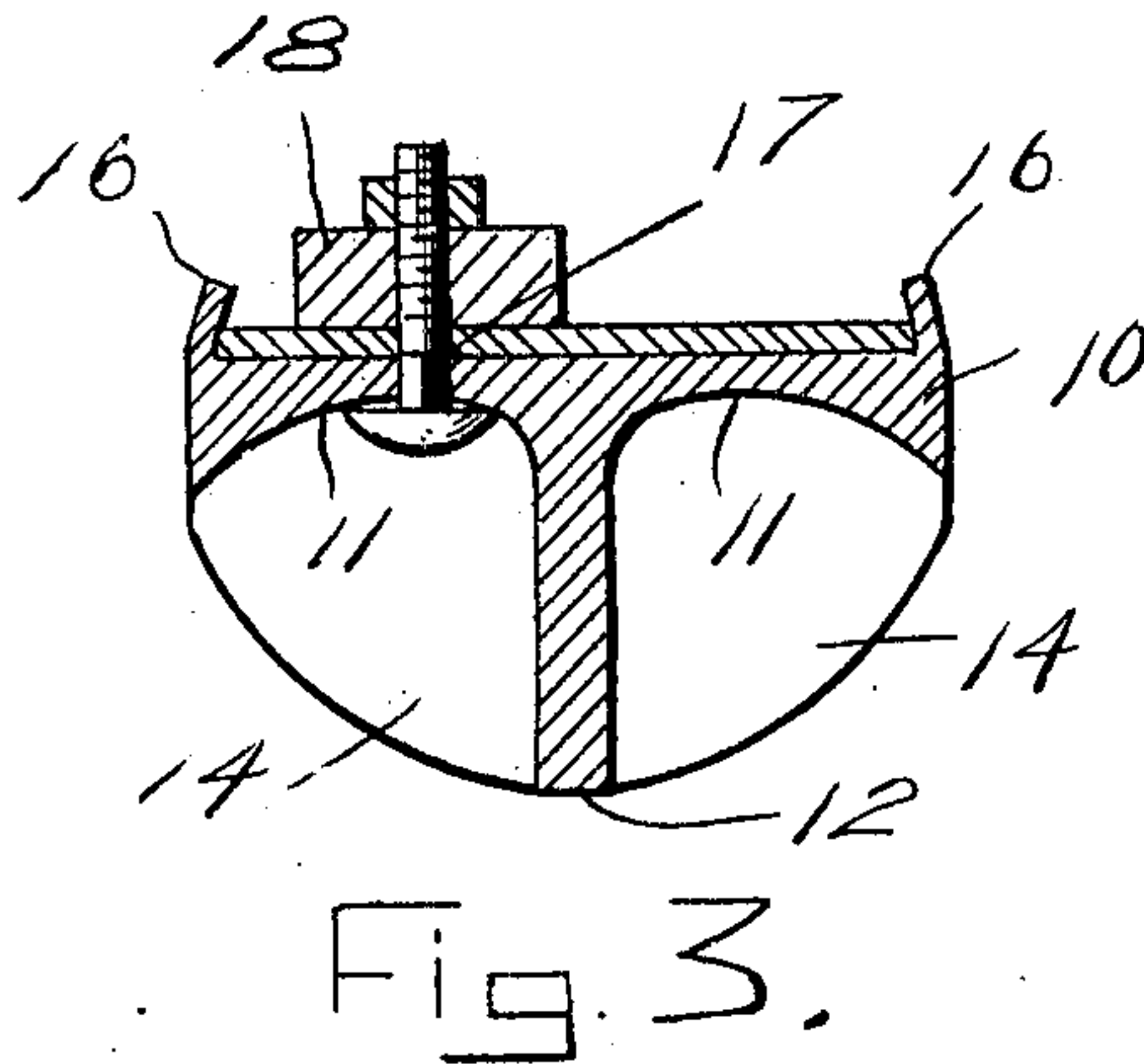


Fig. 3.

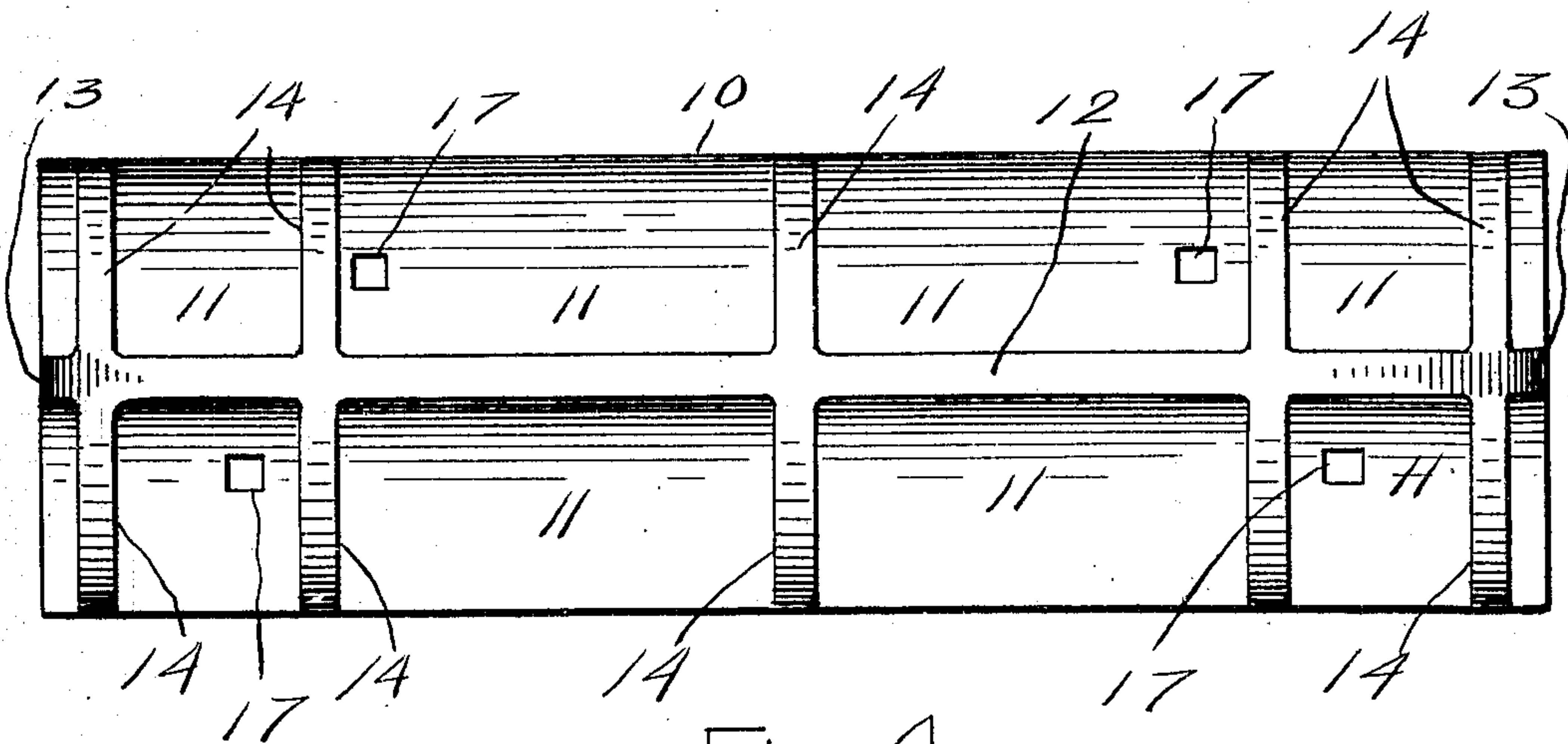


Fig. 4.

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UNITED STATES PATENT OFFICE.

LEWIS M. WRIGHT, OF FOUNTAIN, COLORADO.

METALLIC RAILWAY-TIE.

No. 871,658.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed January 31, 1907. Serial No. 355,167.

To all whom it may concern:

Be it known that I, LEWIS M. WRIGHT, a citizen of the United States, residing at Fountain, in the county of El Paso, State of Colorado, have invented certain new and useful Improvements in Metallic Railway-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 has particular reference to metallic railway ties.

It is the object of the invention to provide such improvements in metallic railway ties as will tend to overcome all of the objections heretofore had to them, said improvements in part comprising a concave bottom to the tie that will hold the ballast therebelow against the longitudinal web; the provision of transverse webs forming an integral part of the longitudinal web that will operate to strengthen the entire structure; and a relatively broad top that will act with the webs to keep the tie in place so that it may not readily be acted upon by frost and other forces of nature.

The nature of the invention is ascertainable from the means portrayed in the annexed drawings, forming a part of this specification, in view of which it will first be described with respect to its construction and mode of use, and then be pointed out in the subjoined claims.

Of the said drawings—Figure 1 is a side elevation of the improved metallic tie. Fig. 2 is a plan of the same. Fig. 3 is a transverse section in the plane 3—3, Fig. 2. Fig. 4 is a bottom view.

Similar numerals of reference designate similar parts or features, as the case may be, wherever they occur.

In the drawings 10 designates the body of the tie which is composed of a slab, so to speak, of malleable cast iron of quite extensive breadth, having a flat top, and a concave bottom 11 on each side of the central longitudinal web 12, the latter extending from end to end of the tie and sloping upward somewhat at the ends 13. The bottom of the body 10 is provided with a plurality of transverse webs 14 integrally connected with the longitudinal web 12 and curving or inclining inward from the sides of the body to the bottom of the web 12. The transverse

webs 14 are arranged closer together at the end portions of the tie than at its center for the purpose of giving it greater stiffness at these points upon which the rails 15 are laid and which are subjected to greater shocks and strains than the middle portion. Under this construction pockets, as it were are formed between the longitudinal and transverse webs so that ballast may be firmly tamped therein under the body, which the concave form of the under surface of the tie will tend to hold in place.

The sides of the body opposite to the line where the rails will rest are provided with lugs or tabs 16, between which shims of wood or other sound deadening material are placed for the rails to rest upon. After the shims are put in place the tabs may be slightly bent over their edges to hold them in place. Holes 17 are made through the tie on opposite sides of the line where the rail is to rest in order to have braces 18 secured thereto to keep the rails in place and particularly to prevent them from spreading. Owing to the great width of the top of the body, extensive provision is made for the reception of said braces which may be made as strong as wanted, and for that matter, on the outside of the rail may consist of more than one as an assurance against the spreading of the rails.

The ties may be produced at relatively low cost and it is apparent that they possess durability in a high degree, as well as steadiness on the roadbed which contributes not only to safety but to comfort as well.

What is claimed is—

1. A malleable cast-iron railway tie comprising a broad flat-top body, having a depending web extending centrally from end to end, and the bottom of the body on each side of the webs being concaved.

2. A malleable cast-iron railway tie comprising a broad flat-top body, having a depending web extending centrally from end to end, transverse webs extending from the sides of the top inward to the first mentioned web and the bottom of the body between the transverse webs and the central web on each side of the latter being concaved.

3. A malleable cast-iron railway tie having a broad flat-top and tabs or lugs formed on the sides of the top at points on the sides of the line for the support of the rails, and sound-deadening shims arranged on the said

lines and engaged by the said lugs to hold them in place.

4. A malleable cast-iron railway tie comprising a broad flat-top body having a depending web extending centrally from end
5 to end, transverse webs extending from the sides of the top inwardly and inclined from their upper edges inward to the longitudinal

web, the bottom of the body being concaved on each side of the longitudinal web. 10

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

LEWIS M. WRIGHT.

Witnesses:

HERMAN C. JOY,

BENJAM S. WALL.