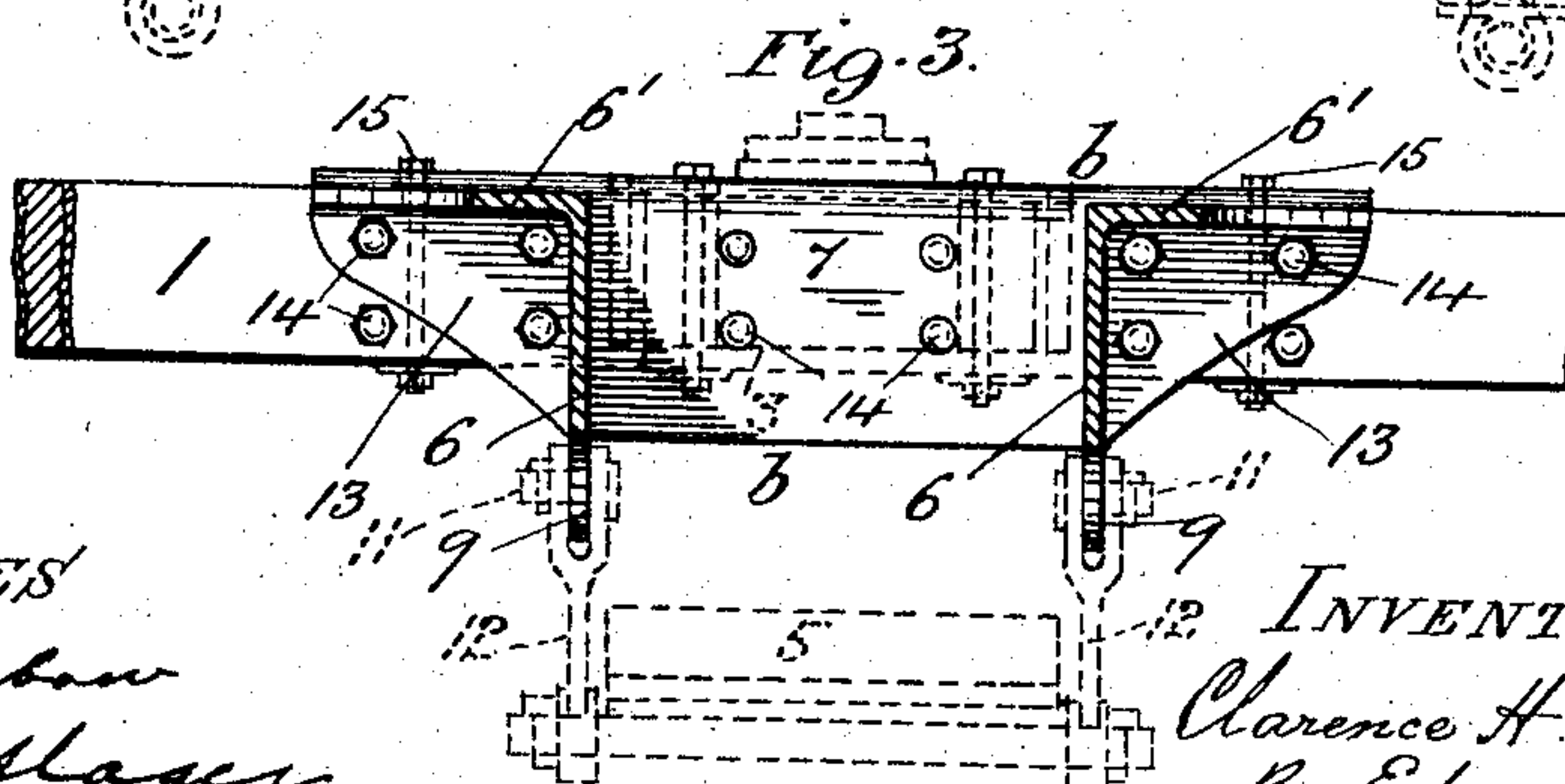
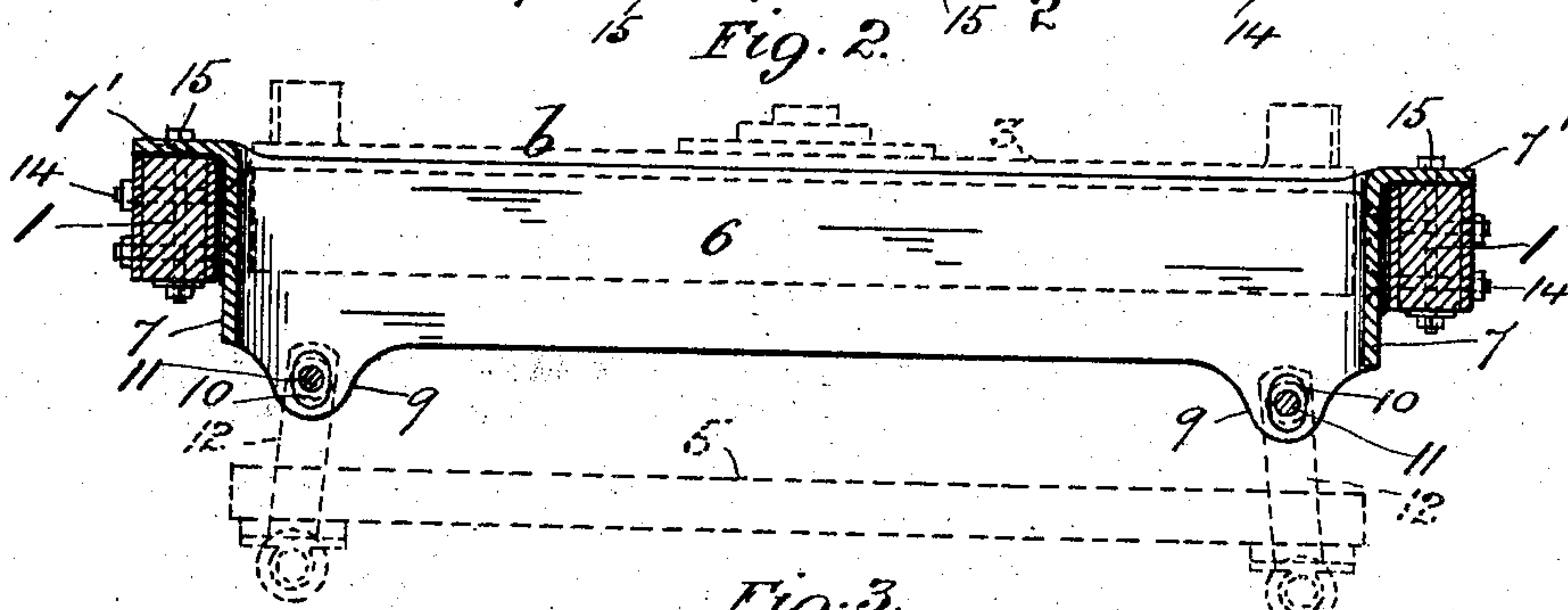
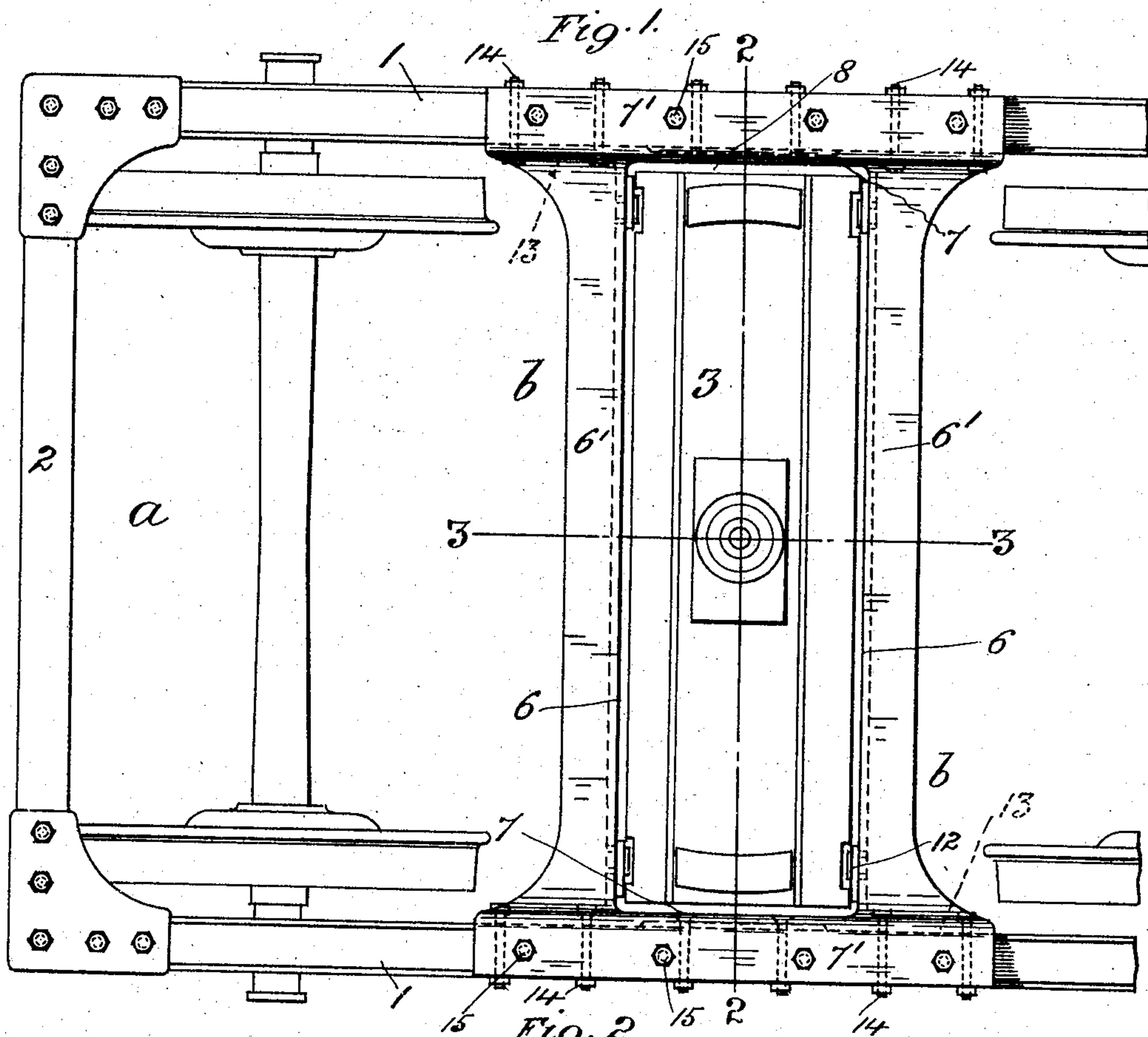


No. 780,658.

PATENTED JAN. 24, 1905.

C. H. HOWARD.
CAR TRUCK.

APPLICATION FILED SEPT. 24, 1904.



WITNESSES

J. W. Benson
H. M. Pfleger.

INVENTOR

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UNITED STATES PATENT OFFICE.

CLARENCE H. HOWARD, OF ST. LOUIS, MISSOURI

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 780,658, dated January 24, 1905.

Application filed September 24, 1904. Serial No. 225,803.

To all whom it may concern:

Be it known that I, CLARENCE H. HOWARD, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a new and useful Improvement in Car-Trucks, of which the following is a specification.

My invention relates particularly to the transoms of a car-truck, and has for its object to simplify the construction and increase the strength and stability of the car-truck frame.

The invention consists in substituting for the two ordinary separately-constructed transoms between which the truck-bolster rides and their corner-plates a double transom made in one piece combined with other features of novelty, as hereinafter described and claimed, reference being had to the accompanying drawings, forming part of this specification, whereon—

Figure 1 is a top plan of my improved double transom as applied to a four-wheel car-truck (broken away) and combined truck-bolster; Fig. 2, a vertical transverse section through the transom and wheel-pieces on line 2 2 in Fig. 1, and Fig. 3 a vertical longitudinal section through the transom on line 3 3 in Fig. 1, the truck-bolster and spring-plank with the swing-hangers being indicated by broken lines in Figs. 2 and 3.

Like letters and numerals of reference denote like parts in all the figures.

a represents a preferably four-wheel car-truck (omitting irrelevant details) having the wheel-pieces 1, end pieces 2, and truck-bolster 3, with the swing-hangers 12 and spring-plank 5, all of which parts may be of the ordinary or other suitable construction.

In lieu of the two separately-constructed transoms ordinarily used between which the truck-bolster rides I substitute a suitably-shaped but preferably rectangular frame *b*, which surrounds the bolster 3 and is composed, preferably, of cast-steel integral throughout. The frame *b* comprises the two side pieces 6, which correspond to the two ordinary transoms, and the end pieces 7, which unite the side pieces 6 together at their ends. The side pieces 6 and end pieces 7 are preferably of an inverted-L shape in cross-section, having their top horizontal flanges 6' and 7', respectively,

directed outward from the vertical legs (or walls of the opening 8 through the frame *b*) and united to each other, the usual clearance being allowed between the inner faces of the sides 6 and ends 7 for the play of the bolster 3, as in the case of the ordinary transoms. The sides 6 are formed at the bottom with depending lugs 9, which are integral with the sides 6 and perforated, preferably, for bushings 10, through which pass the coupling-pins 11 of the swing-hangers 12, (shown by broken lines in Figs. 2 and 3,) or the bushings 10 may be dispensed with and the pins 11 passed directly through the lugs 9. Each end piece 7 of the frame *b* is preferably formed beyond each side piece 6 with an extended portion 13, the outer face of the end piece 7, with its extended portion 13, being adapted to butt or bear against the inner face of the corresponding wheel-piece 1 and the top flanges 7' of the ends 7 13 overlapping the wheel-pieces 1. The frame *b* thus constructed is firmly secured to the wheel-pieces 1 by bolts 14, which pass transversely through the ends 7 13 and wheel-pieces 1, and by bolts 15, which pass vertically through the top flanges 7' and wheel-pieces 1, as shown, the top flanges 7' at their junction with the top flanges 6' of the side pieces 6 being curved toward the latter and forming gusset-stays thereat.

I do not limit myself to the particular shape in cross-section nor configuration in top view of the frame *b*, as above described, as these may be varied as found most desirable in practice. Moreover, if desired, the extensions 13 of the ends 7 may be dispensed with without departure from the principle of the invention, which is to combine the two separate transoms and their corner-plates as now used in a single piece without corner-plates and to secure the combined structure to the wheel-pieces along an extended bearing formed by the ends of the frame uniting the two transoms, whereby the rigidity and durability of the latter and the wheel-pieces 1 are greatly increased and safety insured.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a car-truck, the combination with the wheel-pieces and the truck-bolster, of a suit-

able frame integral throughout and surrounding the said bolster, the sides of the said frame forming a double transom, and the ends of the frame being adapted to butt against the inner faces of the wheel-pieces, the said ends having respectively a top flange integral with the body and overlapping the corresponding wheel-piece, and means for securing the said frame to the wheel-pieces, substantially as described.

2. In a car-truck, the combination with the wheel-pieces and the truck-bolster, of a suitable frame integral throughout, and surrounding the said bolster, the sides of the said frame forming a double transom and having depending lugs integral therewith for the swing-hangers, the ends of the frame being adapted to butt against the inner faces of the wheel-pieces, and means for securing the said frame to the wheel-pieces, substantially as described.

3. In a car-truck, the combination with the wheel-pieces and the truck-bolster, of a suitable frame integral throughout and surrounding the said bolster, the sides of the said frame forming a double transom and each end of the frame having an extended portion beyond each of the said sides, the said end with its extended portions being adapted to butt against the inner face of the corresponding wheel-piece and having a top flange overlapping the said piece, and means for securing the said frame with its extended portions to the wheel-pieces, substantially as described.

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

CLARENCE H. HOWARD.

Witnesses:

H. M. PFLOGER,
EDWARD W. FURRELL.