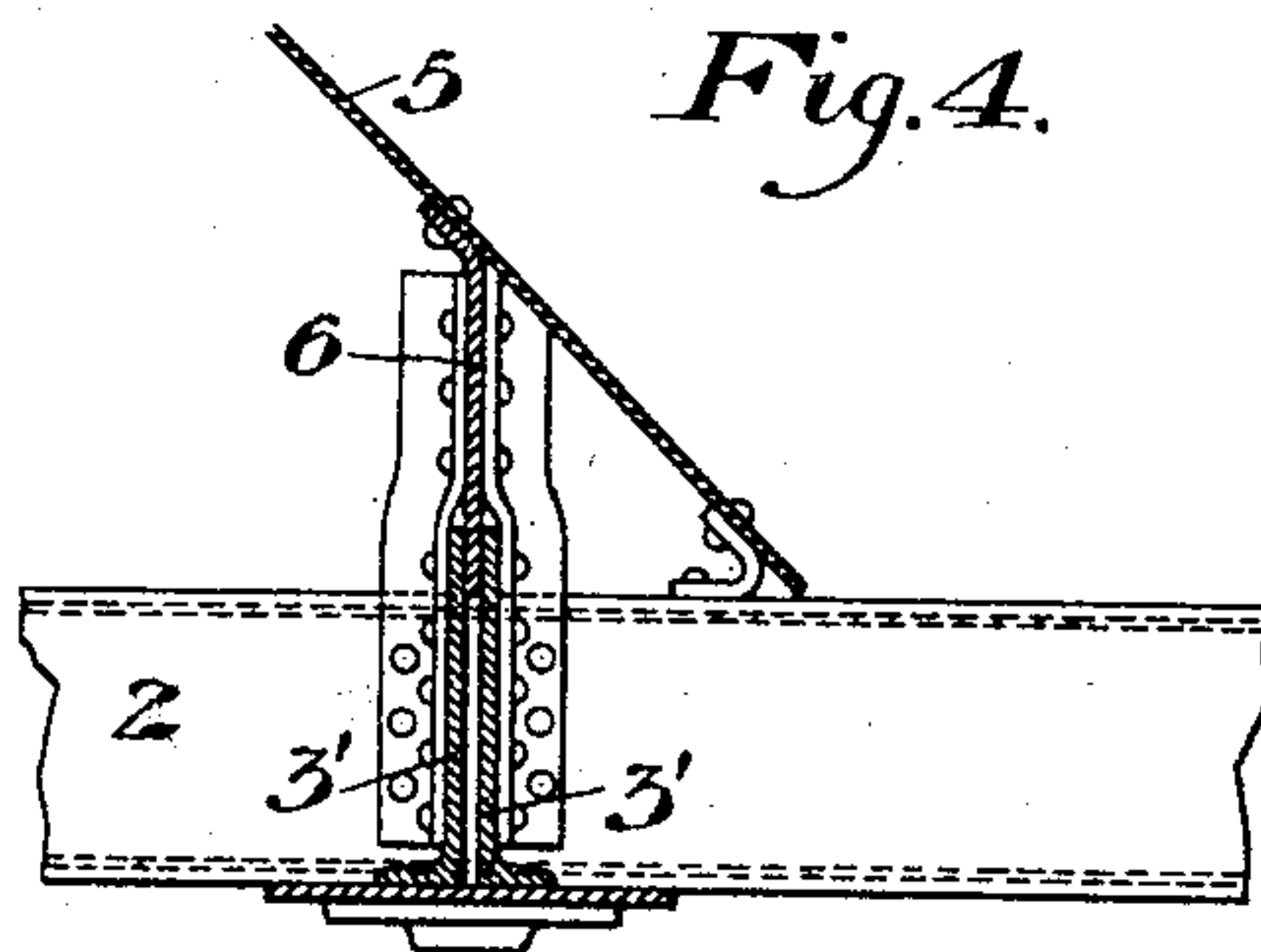
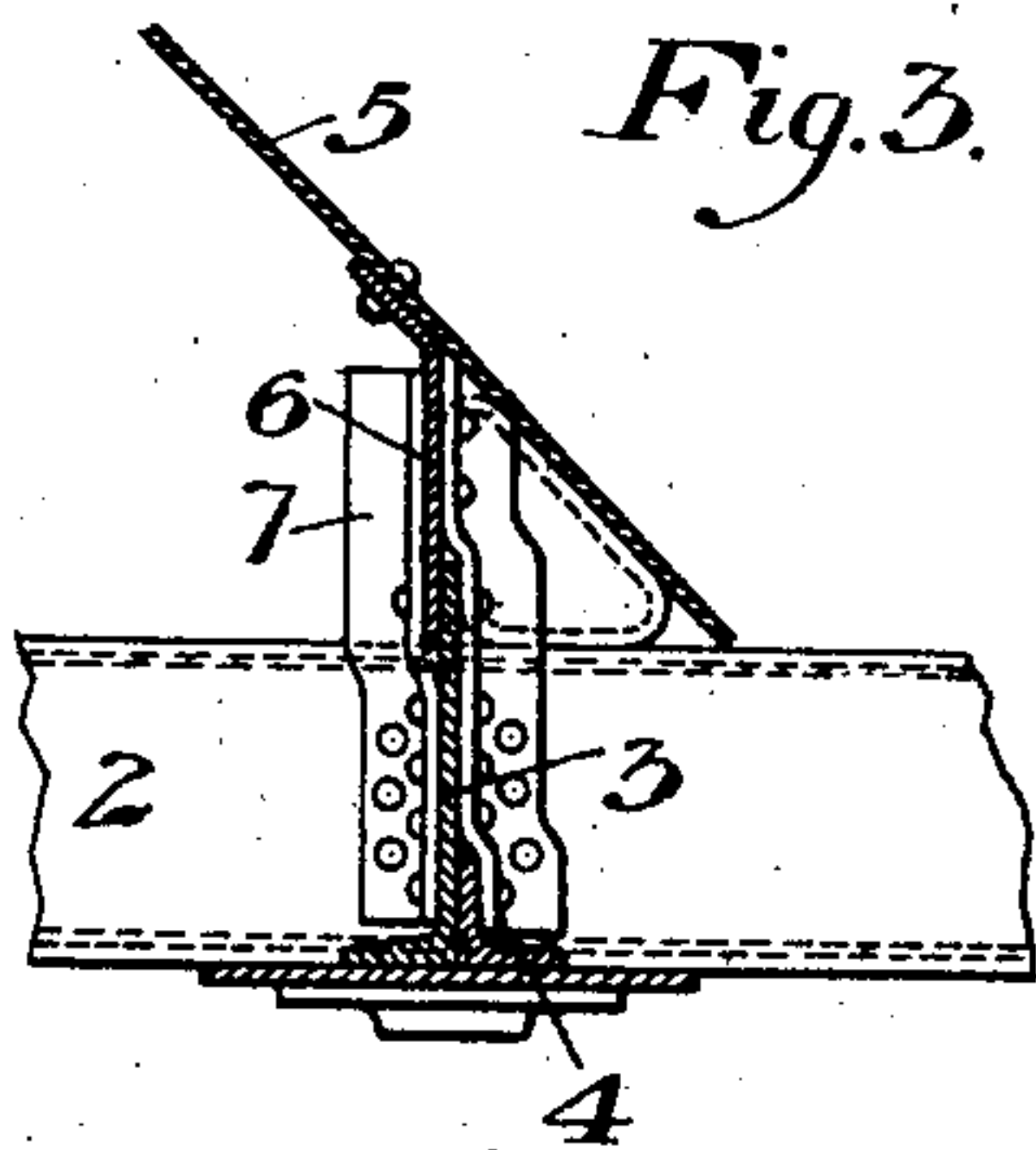
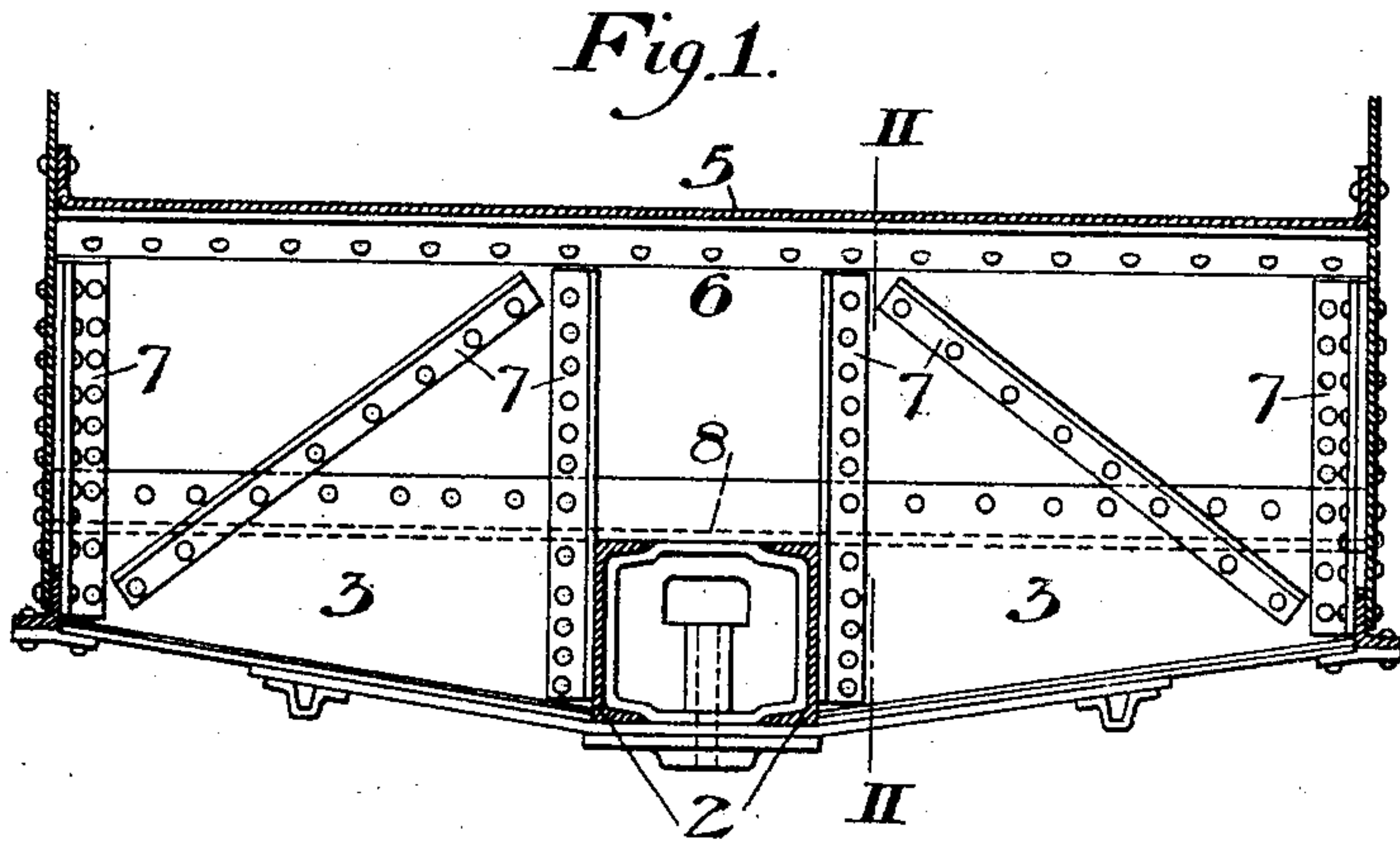
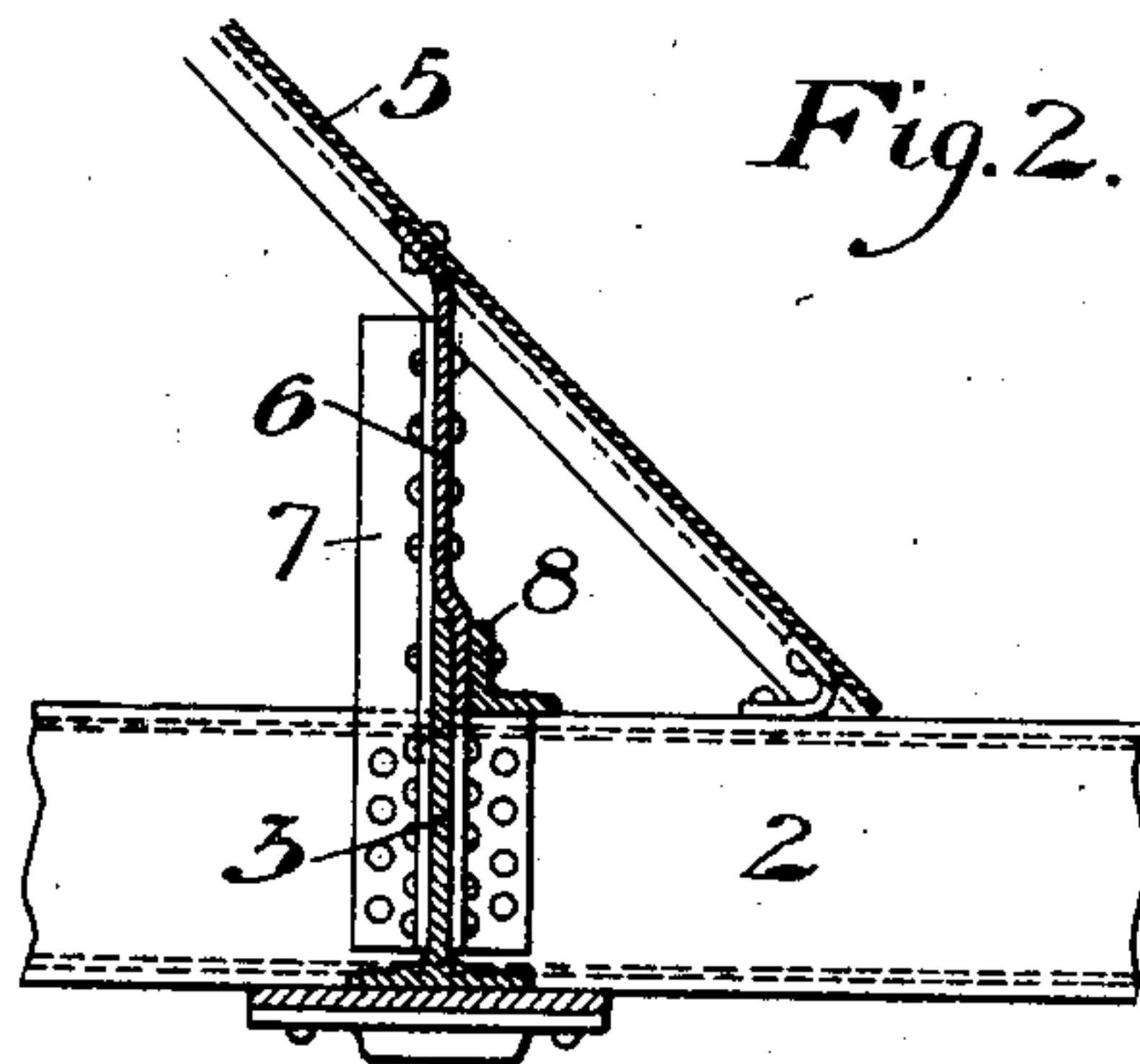


No. 785,866.

PATENTED MAR. 28, 1905.

E. I. DODDS.
CAR FRAME.

APPLICATION FILED JAN. 29, 1904.



WITNESSES

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ETHAN I. DODDS, OF AVALON, PENNSYLVANIA, ASSIGNOR TO PRESSED STEEL CAR COMPANY, OF PITTSBURG, PENNSYLVANIA, A CORPORATION OF NEW JERSEY.

CAR-FRAME.

SPECIFICATION forming part of Letters Patent No. 785,866, dated March 28, 1905.

Application filed January 29, 1904. Serial No. 191,117.

To all whom it may concern:

Be it known that I, ETHAN I. DODDS, of Avalon, Allegheny county, Pennsylvania, have invented a new and useful Car-Frame, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 shows in vertical cross-section a car-frame constructed in accordance with my invention. Fig. 2 is a vertical longitudinal section on the line II II of Fig. 1. Fig. 3 and Fig. 4 are sections similar to Fig. 2, but illustrating modifications of the invention.

My invention is an improvement upon the invention described and claimed in an application, Serial No. 191,116, filed herewith, (Case A;) and in the main the improvement consists in using, instead of the strut-bars shown in the drawings of that application a strut-plate which extends upwardly from the web of the body-bolster. The plate which I use serves as a tension member for the body-bolster and also as a connection between the bolster and the car-floor.

In the drawings, 2 is the center sill of the car, which is preferably made of parallel channel-beams, as shown in Fig. 1, but may be otherwise constructed.

3 3 are the members of the body-bolster, which extend at right angles to the center sill and are fixed thereto at their inner ends with their upper edges extending above the level of the center sill. These members are preferably formed with an integral flange at their lower edge and with an unflanged upper edge. This can be done by taking an I-beam, as shown in Fig. 2, and shearing it longitudinally with a bias cut through the web, or taking a channel-beam, as shown in Fig. 3, and shearing it in like manner, reinforcing the remaining flange by an attached angle or other flanged section 4, or the bolster may be constituted by two sections cut with a longitudinal bias cut from a channel, bar and set back to back, as shown by the parts 3' in Fig. 4. The bolster constituted as shown in these figures is connected with

the car-floor 5 by an interposed strut-plate 6, which is riveted to the part of the bolster projecting above the center sill and is also riveted to the car-floor. The connection between these parts is preferably reinforced and the construction rendered stiffer by braces 7, which connect the web of the bolster with the plate and are riveted to each. Some of these braces are diagonal, and thus distribute the load advantageously. I show them in the drawings as consisting of angle-bars; but they may be formed of channels. The entire construction may therefore be built of rolled shapes and plates of standard size without producing substantially any scrap.

In Fig. 2 the plate 6 at its connection with the bolster is interposed between the web of the bolster and an attached angle 8. In Fig. 3 the plate 6 is attached directly to the web of the bolster, and no attached angle at this connection is shown. In Fig. 4 the plate 6 is interposed between the two members 3' 3' of the bolster.

Within the scope of my invention as defined in the claims a skilled mechanic may modify the construction in various ways, since

What I claim is—

1. In combination with a bolster flanged at its lower side only, a tension strut-plate secured directly to the web of the bolster and extending upwardly therefrom; substantially as described.

2. In combination with a bolster flanged at its lower side only, a tension strut-plate secured directly to the web of the bolster, extending upwardly therefrom and secured to the car-floor; substantially as described.

3. A bolster having an integral flange at its lower edge only, and a parallel tension strut-plate secured to the upper portion of its web; substantially as described.

4. A car-sill, a bolster having an integral lower flange and a web extending above the sill, and a tension strut-plate secured directly to the projecting portion of the bolster; substantially as described.

5. In combination with a bolster, a tension strut-plate extending upwardly therefrom, and flanged braces connecting the bolster with the plate; substantially as described.

6. In combination with a bolster, a tension strut-plate extending upwardly therefrom, and flanged braces connecting the bolster with the plate; said braces extending diagonally and adapted to distribute the load; substantially as described.

7. In combination with a bolster having a

flanged member adjacent to its upper edge, of a tension strut-plate interposed between the flanged member and the bolster and extending upwardly therefrom and flanged braces connecting the bolster with the plate; substantially as described. 15

In testimony whereof I have hereunto set my hand.

ETHAN I. DODDS.

Witnesses:

THOS. K. LANCASTER,
LAURA KLEINFELDER.