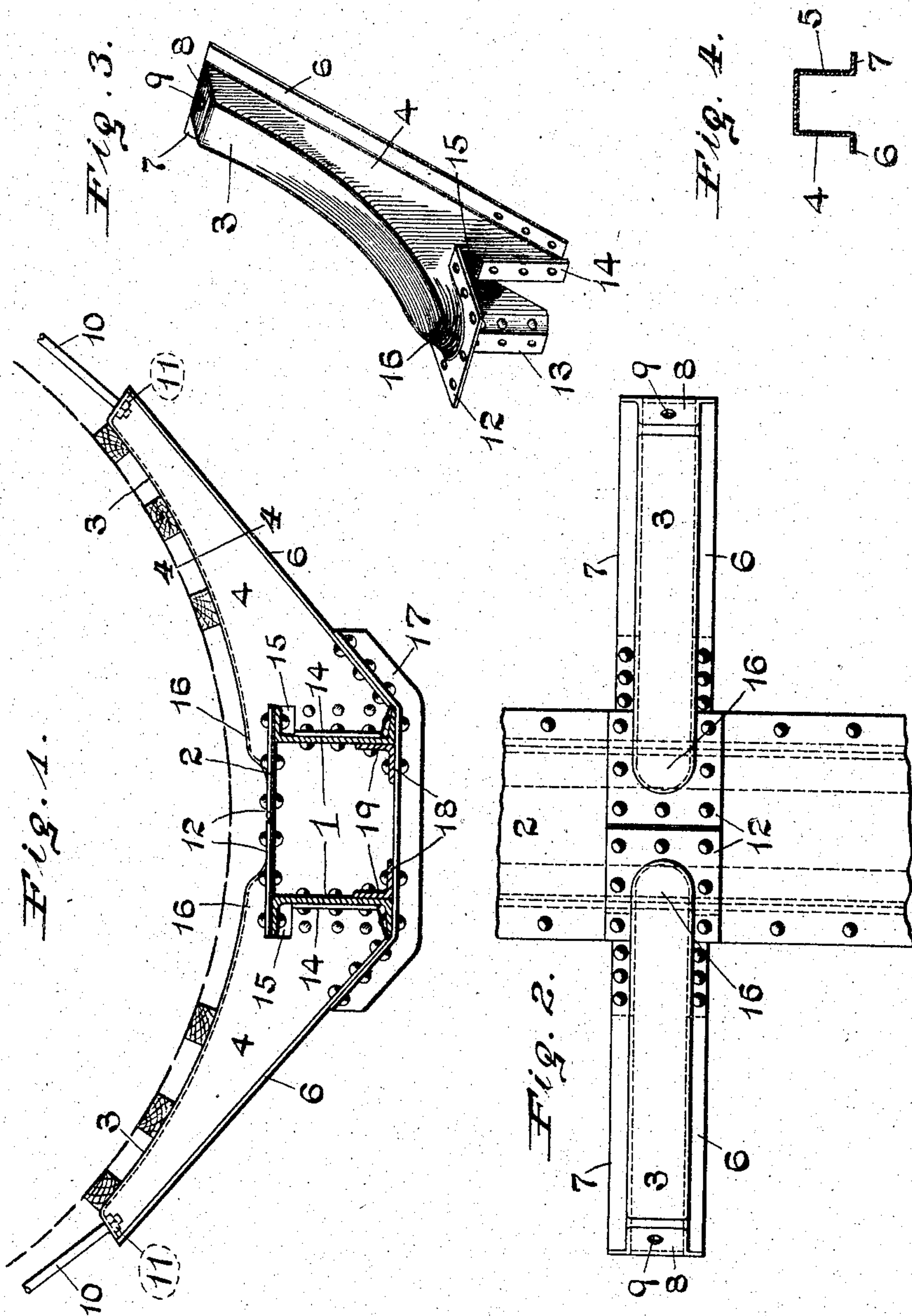


No. 781,030.

PATENTED JAN. 31, 1905.

P. P. STURDEVANT.  
TANK SUPPORT.

APPLICATION FILED NOV. 11, 1904



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## TANK-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 781,030, dated January 31, 1905.

Application filed November 11, 1904. Serial No. 232,329.

*To all whom it may concern:*

Be it known that I, PAYNE P. STURDEVANT, a citizen of the United States, residing at Passaic, New Jersey, have invented a certain new and useful Improvement in Tank-Supports, of which the following is a full, clear, and exact description, 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, forming part of this specification, in which—

Figure 1 is a cross-sectional view through the center sill of a car, showing my invention applied and illustrated in side elevation. Fig. 2 is a top plan view of the invention applied to the center sill. Fig. 3 is a detail perspective view of one of the cross-bearers, and Fig. 4 is a cross-sectional view on the line 4-4 of Fig. 1.

This invention relates to cross-bearers or tank-supports for railway-cars, and is particularly designed to be employed as part of the underframing of a tank-car, the cross-bearer being so designed that it will efficiently support the tank at the particular point at which it is positioned.

The primary object of this invention is to provide an inexpensive, durable, and efficient cross-bearer which may be readily attached to the center sill and possess the requisite strength and impart the necessary rigidity for supporting the tank.

Other objects and advantages, as well as the novel details of construction of this invention, will be specifically described hereinafter, it being understood that changes in form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages thereof.

In carrying out my invention I have illustrated the cross-bearers as being attached to a center sill composed of channels 1, having outwardly-disposed flanges, on the top flanges of which is riveted a cover-plate 2. The preferred form of the cross-bearer is illustrated in Fig. 3, and this form consists of a plate pressed to the desired shape, with a curved

upper edge 3, having sides 4 and 5 parallel with each other at the lower edges of which are outwardly-disposed flanges 6 and 7. The outer ends of the side plates are connected by a web 8, having a perforation 9 therein for the reception of the tank tie-rod 10, on the end of which is a nut 11, whereby the rod may be tightened. It will be apparent by reference to Fig. 3 that the cross-bearer is of box-like form, having a relatively deep portion at one end and a relatively shallow portion at the other, the flanged lower edges of the plates extending in an upwardly-inclined straight line from the bottom of the center sill to a point above the center sill, while the upper portion of the cross-bearer is curved from a point above the center sill downwardly to a point above the center sill and provided with a lateral flange 12, which rests upon and is riveted to the cover-plate 2 of the center sill. In order that additional strength and rigidity may be imparted to the car, I connect the downwardly-extending edges of the side plates 4 and 5 to the web of the adjacent center sill channel by means of the angles 13 and 14, a suitable notch 15 being provided in each cross-bearer to receive the upper flange of the adjacent center-sill channel, so that the flange 13, with the extension 16, which carries it, may be extended over and beyond the upper flange of the center-sill channel to permit the extreme edge of the flange 12 to lie in substantially the same plane as the longitudinal center of the cover-plate 2. A bottom cover-plate 17 is riveted to the bottom flanges 6 and 7 of the oppositely-arranged cross-bearers, and this cover-plate is preferably in the form of a T-bar. The flanges of the T-bar are riveted to the flanges 6 and 7 of each cross-bearer, to the bottom flanges of the channel members of the center sill, and to the flanges 18 of the angles 19, which are riveted to the webs of the channel members of the center sill, so that a sufficiently rigid structure will result. In actual practice the entire cross-bearer may be formed by a single operation, with exception of the flanges 13 and 14, which may be subsequently riveted to the edges of the cross-bearer



adjacent to the web of the center sill. However, it is obvious that these flanges 13 and 14 may also be formed integral with the side plates 4 and 5, if desired. This, however, might necessitate a second operation for its accomplishment.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

10 1. A pressed-steel tank-support having bottom flanges, and a flanged end portion to engage the top of the center sill; substantially as described.

2. A pressed-steel tank-support relatively 15 deep near the center sill and relatively shallow on the opposite end, the relatively deep portion being provided with a flanged projection to engage the top of the center sill; substantially as described.

20 3. A pressed-steel tank-support, having an end projection to overlap the top of the center sill of a car, the free ends of the flanged projection being adapted to lie in substantially the same plane as the longitudinal center of 25 the center sill; substantially as described.

4. A tank-support, comprising side plates curved at their upper edges and connected by an intermediate web integral therewith, the outer ends of the side plates being narrower 30 than the inner ends, flanges carried by the bottoms of the plates, flanges carried by the wider edges of the plates, and a laterally-disposed horizontal flange to engage the center sill; substantially as described.

35 5. A pressed-steel tank-support, compris-

ing integral side plates having flanged lower edges extending in a straight line from the bottom of the center sills to a point above the center sills, said plates having curved upper edges; substantially as described. 40

6. A pressed-steel tank-support, having side plates, a web connecting them at the top and curved on the arc of a circle, a web connecting the ends of the side plates, and flanges 45 carried by the support for engagement with the top of the center sill and side of the car; substantially as described.

7. A pressed-steel tank-support having outwardly-disposed bottom flanges, vertical end flanges, and a horizontal flange above the 50 vertical end flanges and projecting beyond the plane of the vertical flanges; substantially as described.

8. A pressed-steel tank-support having bottom flanges, end flanges comprising angles 55 riveted to the tank-support, and a horizontal securing-flange above the end flanges; substantially as described.

9. A tank-support comprising side plates, a web connecting the upper ends of the side 60 plates, a projecting end having a laterally-disposed flange, and bottom flanges carried by the side plates; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, 65 this 7th day of November, 1904.

PAYNE P. STURDEVANT.

Witnesses:

JOHN McE. AMES,

PHILIP B. SHERIDAN.