

No. 803,312.

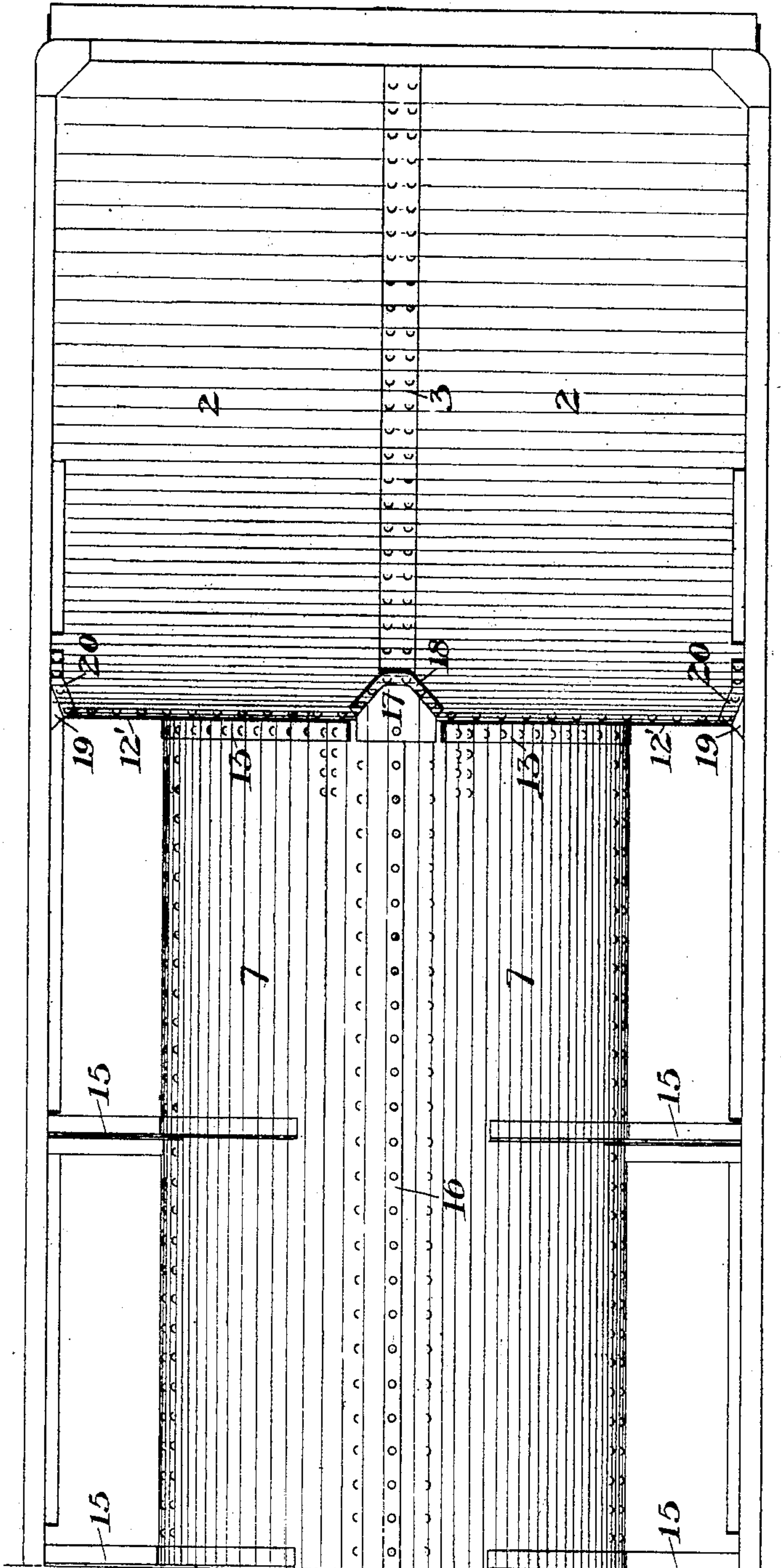
PATENTED OCT. 31, 1905.

J. F. STREIB.  
CAR CONSTRUCTION.

APPLICATION FILED FEB. 1, 1904.

3 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

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J. M. Convin

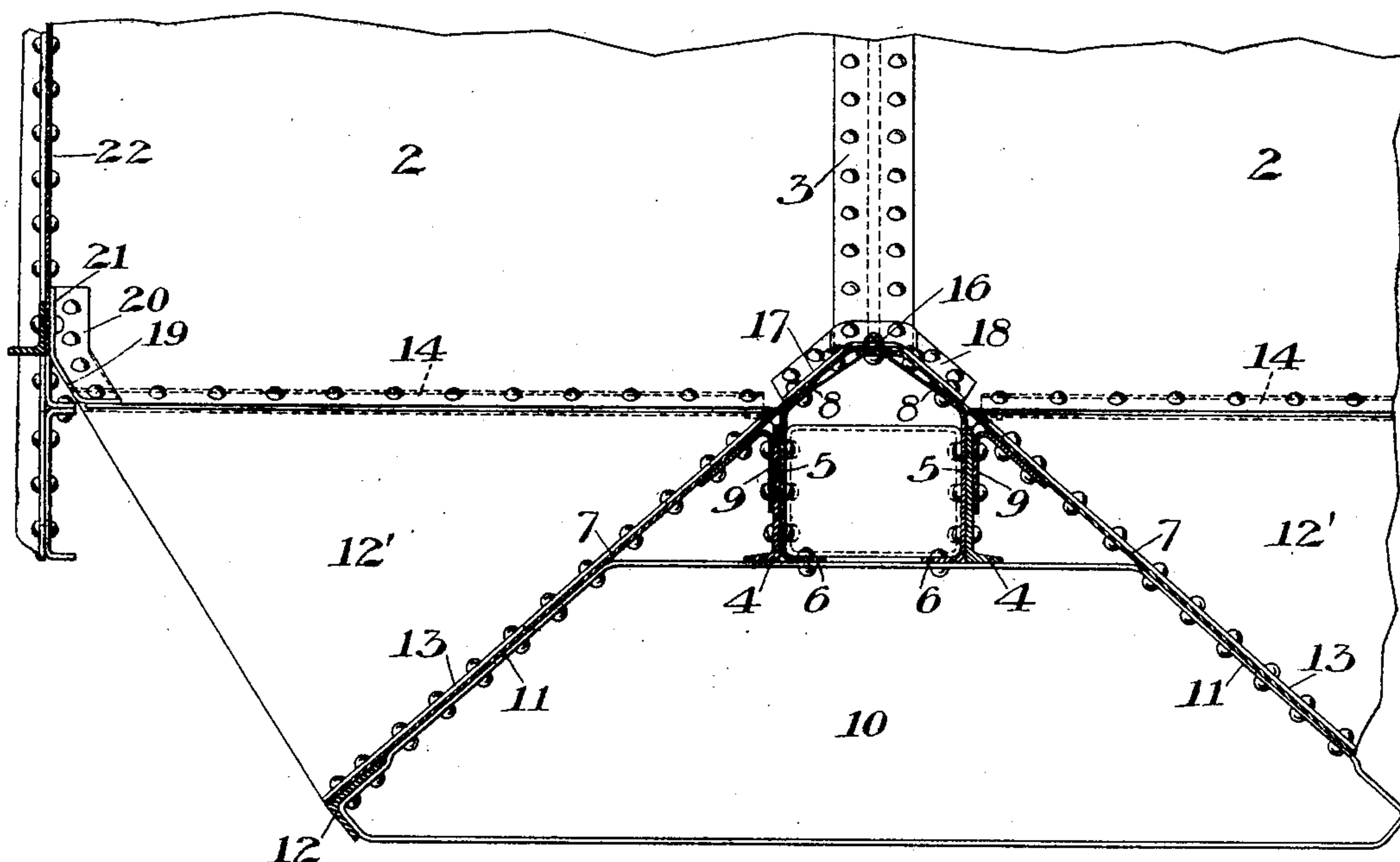
INVENTOR

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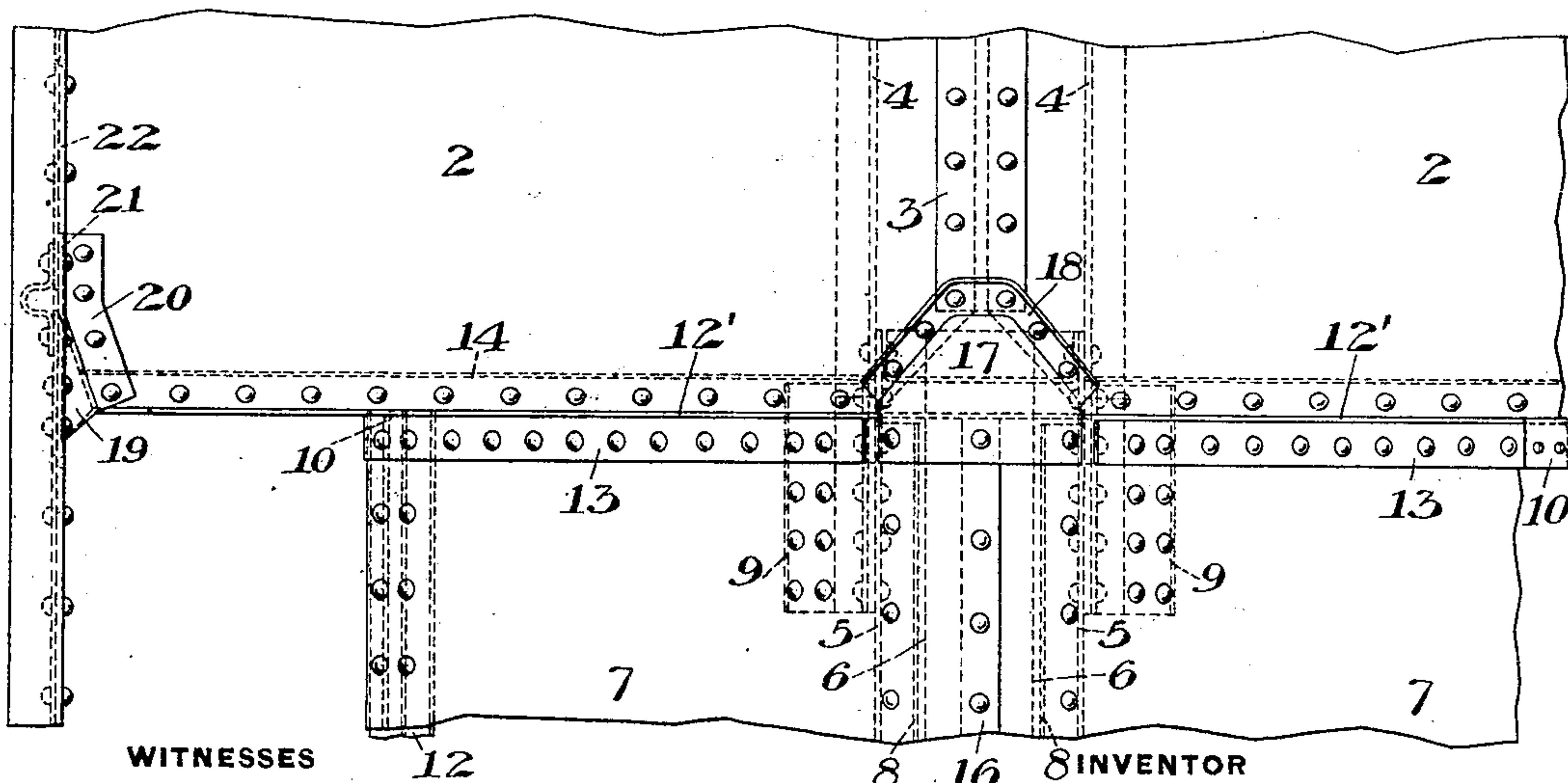
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3 SHEETS—SHEET 2.

*Fig. 2.*



*Fig. 3.*



WITNESSES

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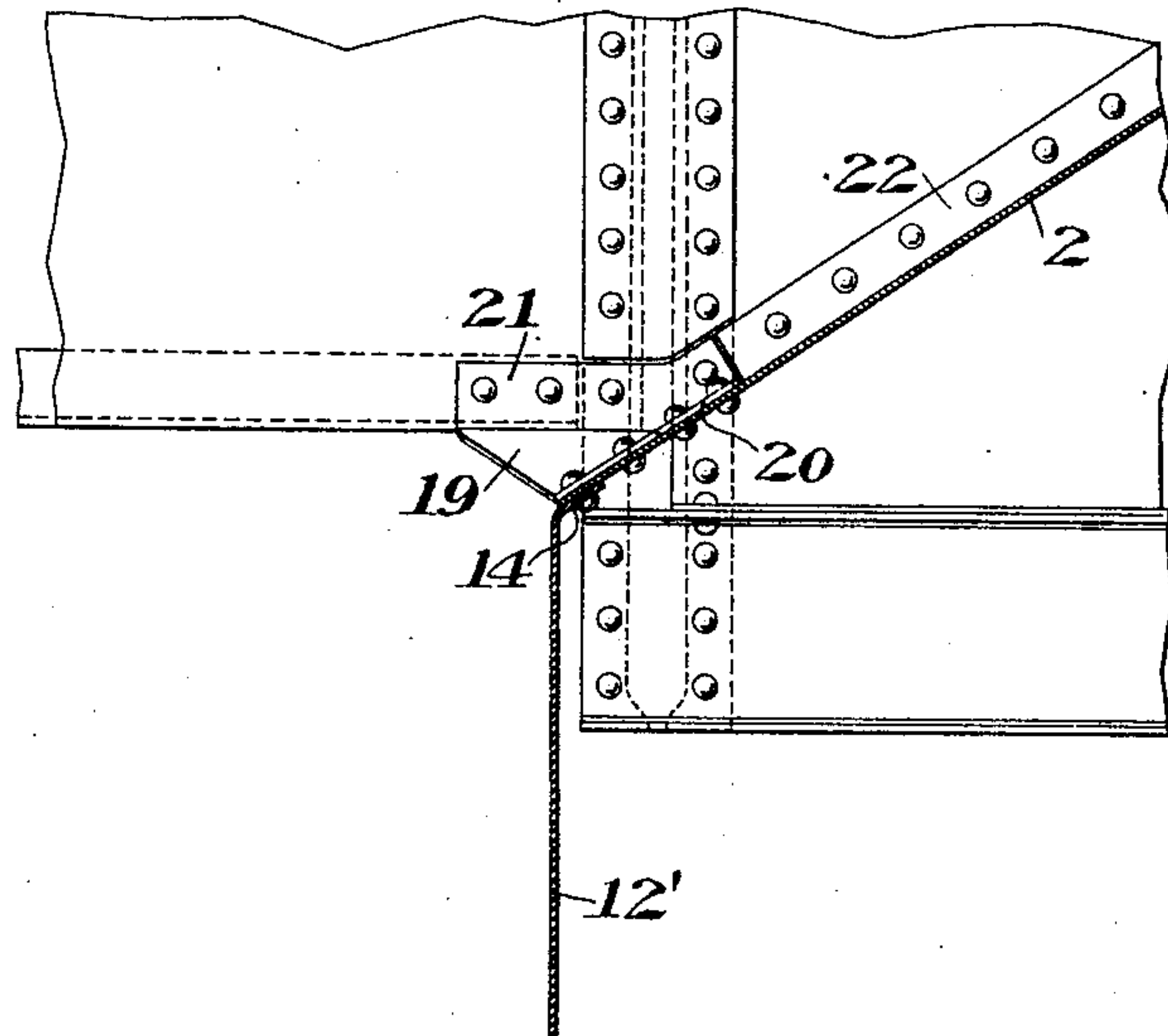
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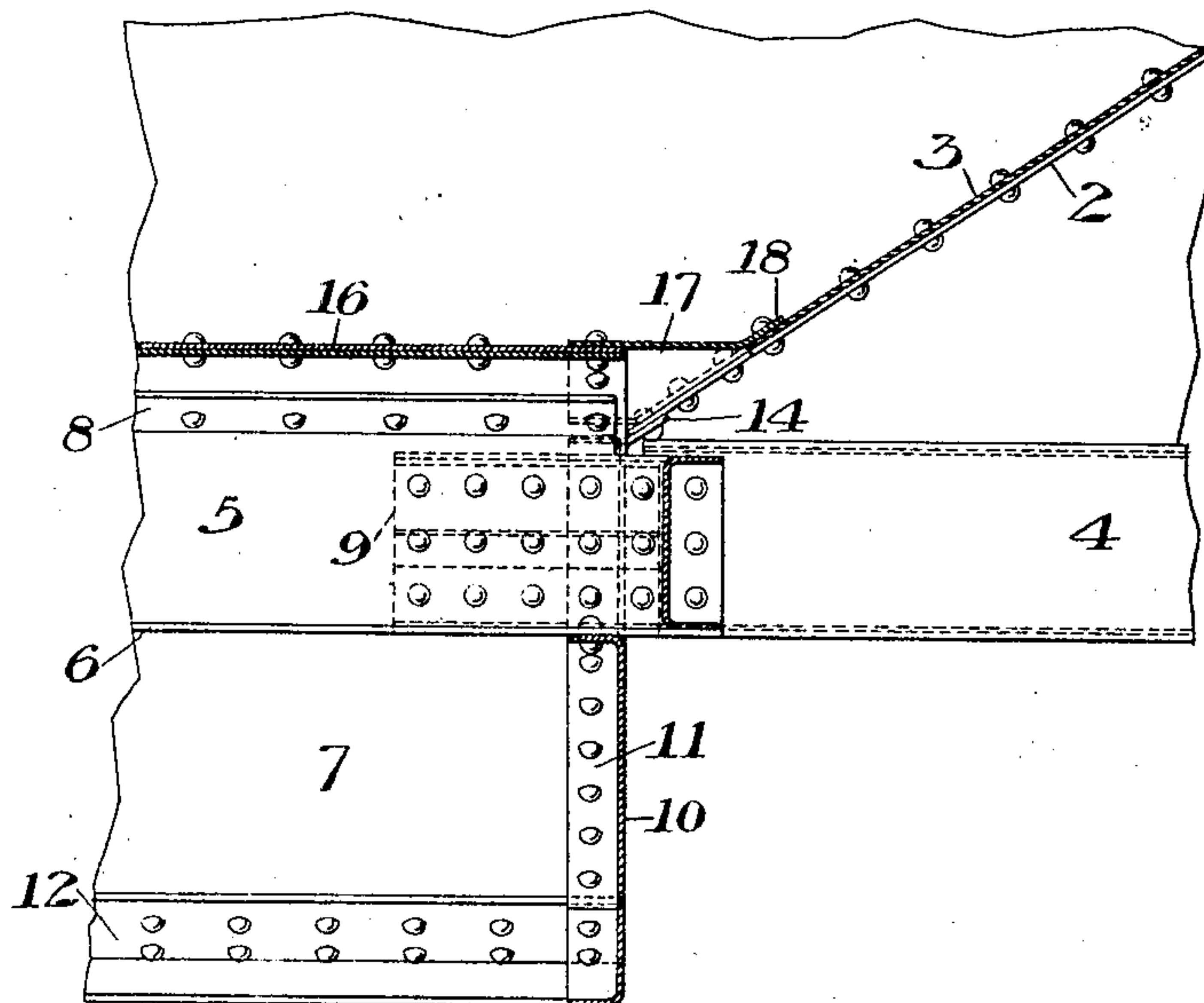
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3 SHEETS—SHEET 3.

*Fig. 4.*



*Fig. 5.*



WITNESSES

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# UNITED STATES PATENT OFFICE.

JOHN F. STREIB, OF AVALON, PENNSYLVANIA, ASSIGNOR TO PRESSED STEEL CAR COMPANY, A CORPORATION OF NEW JERSEY.

## CAR CONSTRUCTION.

No. 803,312.

Specification of Letters Patent.

Patented Oct. 31, 1905.

Application filed February 1, 1904. Serial No. 191,450.

*To all whom it may concern:*

Be it known that I, JOHN F. STREIB, of Avalon, Allegheny county, Pennsylvania, have invented a new and useful Car Construction, 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 is a top plan view showing the end portion of a steel car constructed in accordance with my invention. Fig. 2 is a vertical cross-section looking toward the end of the car. Fig. 3 is an enlarged partial plan view showing the joint between the sloping end and the central ridge. Fig. 4 is a side detail of the sloping-end construction, and Fig. 5 is a longitudinal sectional detail at the joint.

The present case covers subject-matter shown but not claimed in my copending application, Serial No. 169,279, filed August 12, 1903, upon which issued Patent No. 758,392, dated April 26, 1904.

My invention relates to that type of steel cars wherein a sloping end floor merges into a central ridge, the doors swinging outwardly from the longitudinal central axis of the car on both sides of the ridge. The object of the invention is to provide a simple and strong construction especially at the juncture between the sloping end and the ridge.

In the drawings, 22 represent the end plates making up the sloping end of the car, these plates having their adjacent edges covered by the cover-strip 3, riveted thereto.

The central longitudinal ridge of the car between the sloping ends is formed in the following manner: The top flanges of the channels 4 4, forming the end draft-sill, are cut away at their inner ends, and to their inner faces are riveted the pressed-steel plates 5 5, which extend throughout the intermediate portion of the car between the draft-sills and, with the ridge-plates, form the center sill. These plates 5 are preferably formed with lower inwardly-projecting flanges 6, while their upper portions are bent inwardly at an angle corresponding to the angle of the longitudinal floor or ridge plates 7 to form angular flanges 8.

The upper flanges of the draft-sill members being cut away at their inner ends, I provide the short connecting-plates 9 of substantially V shape through these portions. The legs of the V shapes are riveted to the ridge-plates

and to the outer faces of the draft-sill members 4 by the same rivets which fasten the plates 5 to the sill members. At the ends of the ridge are fillers, consisting, preferably, of pressed shapes 10, having a flange around its entire edge, the side flanged portions 11 being riveted to the ridge-plates. The corner portion of these fillers are struck in slightly to fit against the angles 12, which extend along the lower edges of both sides of the ridge. At the ends of the ridge the ridge-plates are connected to the inclined end floors by pressed gusset-plates 12' of triangular shape, having lower flanges 13 riveted to the ridge-plates by the rivets extending through the flange 11, their upper flanges 14 being bent to conform to the end plates 2 and riveted thereto.

At intermediate points between the ends of the ridges and at suitable intervals apart are placed pressed gusset-plates 15, as shown in Fig. 1, and at these same points the pressed fillers 10 are riveted between the ridge-plates to space and support them.

The floor-plates 7 extend upwardly and inwardly from the angles 12 and at their upper ends are preferably provided with horizontal flanges 16, which fit one above the other and are riveted together. At the joint between the end of the ridge and the inclined end floor I provide a pressed cover or cap 17, having a flange 18, which is riveted to the end plates 2, while its body portion is riveted to the ridge-plates and covers their ends. This cover-plate is of course ridge-shaped in cross-section, while its longitudinal section is shown in Fig. 5. At the point where it crosses the ridge-plates the central rivet extends through three thicknesses—namely, the cover and the two flanges 16 of the plates. At the sides of the car and at the corner of the door-opening I provide a pressed gusset-plate 19, which crosses the corner and has a flange 20 riveted to the floor-plate 2, with one rivet also extending through the flange of the plate 12'. This plate 19 also has a bent flange 21, which is riveted to the car side. The sloping-end plates are flanged at their edges, as shown at 22, the flanges being riveted to the car sides.

The advantages of my invention result from the peculiar manner of supporting the ridge and the structure at the joints between the ridge and the sloping end. The floor or ridge plates coact with the center sills and bottom



angles 12 to form a girder to carry the load and also to resist buffing strains. A simple, strong, and efficient construction is provided which can be readily assembled and riveted in place.

The floor-plates may abut at the ridge instead of overlapping, as shown, and many other changes may be made in the form and arrangement of the parts without departing from my invention.

I claim—

1. A car having a longitudinal central ridge formed by inclined floor-plates with overlapping adjacent flanges, and sill members of less depth than the ridge and supporting said ridge near its apex; substantially as described.

2. A car having a longitudinal central ridge formed by inclined plates with overlapping flanges, sill members of less depth than the ridge to support said plates, and transverse spacers below the sill members and riveted to the floor-plates; substantially as described.

3. A car having a center sill formed of two girder members with inwardly-projecting angular top flanges, and inclined floor-plates of greater depth than the girder members and fitting on said angular flanges; substantially as described.

4. A car having a longitudinal central ridge formed by pressed sill members having upper angular flanges, inclined floor-plates riveted to said angular flanges, and draft-sills having their inner ends secured to the pressed sill members; substantially as described.

5. A car having a center sill formed of two girder members with inwardly-projecting angular top flanges, inclined floor-plates fitting on and secured to said flanges, draft-sills

having their inner ends secured to the sill members, and V-shape connectors between the floor-plates and the inner ends of the draft-sills; substantially as described.

6. A car having a longitudinal ridge formed of sill members with upper angular flanges, inclined floor-plates riveted to said flanges, and a lower transverse spacing-plate having flanges riveted to the floor-plates; substantially as described.

7. A car having a longitudinal central ridge with outwardly-opening doors at the sides, transverse spacing-plates extending below the center sill and having integral flanges riveted to the ridge-plates, and vertical gusset-plates at the ends of the ridge, said gusset-plates having flanges riveted to the sloping-end floor and to the ridge-plates; substantially as described.

8. A car having a longitudinal central ridge with door-openings at the sides, flange shapes extending along the lower edges of the ridge-plates, and transverse spacers secured to the ridge-plates below the sill and bent to accommodate the angles; substantially as described.

9. A car having a sloping end floor and a central ridge with side-door openings, the corner at the lower edge of the sloping end being filled by a pressed shape crossing the corner and having flanges riveted to the car side and to the sloping-end floor; substantially as described.

In testimony whereof I have hereunto set my hand.

JOHN F. STREIB.

Witnesses:

HENRY ALT,  
H. B. FISHER.