J. F. STREIB.

PASSENGER CAR UNDERSTRUCTURE.

APPLICATION FILED JULY 23, 1908.

911,343.

Patented Feb. 2, 1909.

2 SHEETS—SHEET 1.

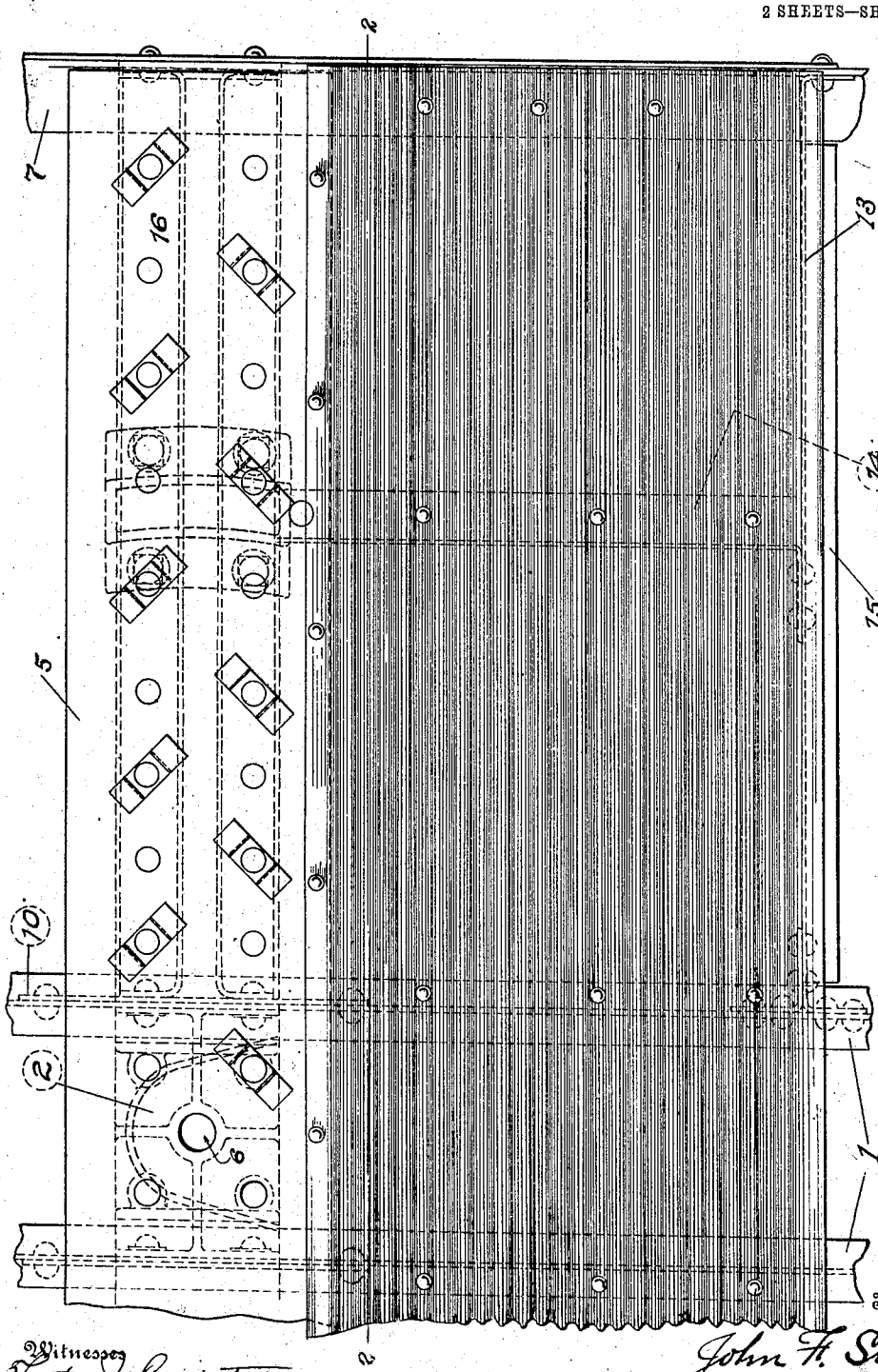


Fig. 1.

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Arthur B. Knickerbocker

Inventor:
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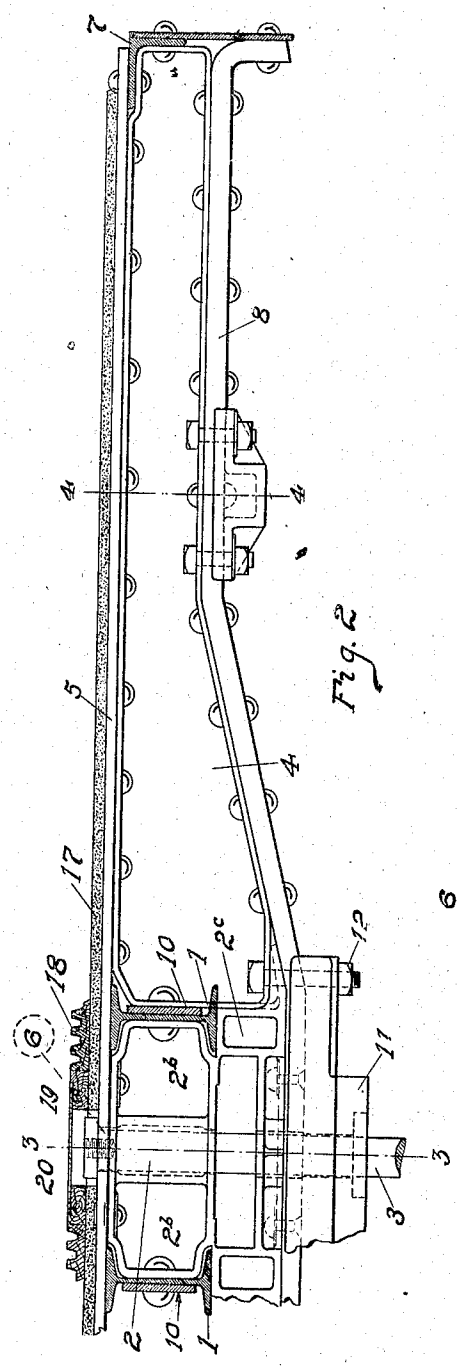


Fig. 2

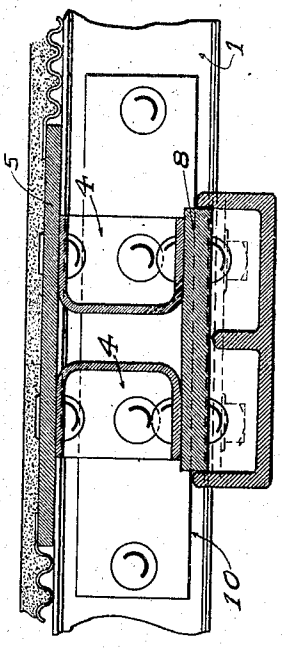


Fig. 4

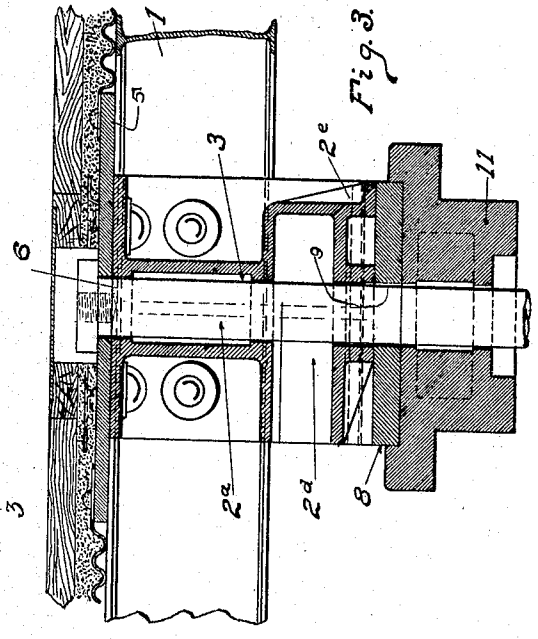


Fig. 3

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UNITED STATES PATENT OFFICE.

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

PASSENGER-CAR UNDERSTRUCTURE.

No. 911,343. Specification of Letters Patent. Patented Feb. 2, 1909.

Application filed July 23, 1908. Serial No. 444,923.

To all whom it may concern:

Be it known that I, JOHN F. STREIB, of Avalon, Allegheny county, Pennsylvania, a citizen of the United States, have invented certain new and useful Improvements in Passenger-Car Understructures, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, in which like reference characters refer to like parts, and in which—

Figure 1 is a plan view of a portion of a car understructure embodying the present invention; Fig. 2 is a sectional elevation on the line 2—2, Fig. 1; Fig. 3 is a longitudinal vertical section on the line 3—3, Fig. 2; and Fig. 4 is a vertical section on the line 4—4, Fig. 2.

An object of the present invention is to provide a car understructure with great strength and comparatively small number of parts, especially adapted for use in passenger cars.

A specific object of the present invention is to provide a structure permitting the use of continuous center sills, that is, center sills running from end sill to end sill, or through the car bolsters.

A further specific object of the present invention is to provide an improved bolster center casting forming a combined center sill support and stiffener and a housing for the king pin and drawbar end.

Referring now in detail to the drawings, 1 represents the center sills.

2 is a bolster center casting having a central perforation 2^a extending throughout its height to receive king pin 3. Casting 2 is provided with lateral flanged webs or extensions 2^b, the flanges of said webs or extensions 2^b being shaped to fit the peculiar contour or shape of the center sills 1. Webs or extensions 2^b are riveted or otherwise secured to center sills 1, and thus the casting 2 forms a stiffener or spacer for the center sills 1. Casting 2 is also provided with lateral extensions 2^c which extend beneath center sills 1 to support same and which, in conjunction with the flanges of the extensions 2^b, form recesses receiving the bases of center sills 1. Extensions 2^c are also extended beyond the seats thus formed for the center sills 1 to form seats or bearings for the heels of the diaphragm, bolster arms or extensions 4 forming with the tie members the bolsters of the car. Diaphragms 4 are flanged, their webs facing each other and their flanges extending in opposite directions. These flanges are bolted or otherwise secured through extensions 2^c.

2^d is a recess formed in the casting 2, of semi-circular shape with flaring sides. Recess 2^d is shown in the drawings as located between the extensions 2^c, and below the center sills 1, although the same may be of any suitable shape and location to serve its function which is that of sustaining and housing the anchored end of the drawbar (not shown). Casting 2 is especially reinforced at 2^e below and back of the recess 2^d, to materially assist in the transference of buffing and pulling stresses from the casting 2 to the bolster.

As stated before, the bolster comprises, in addition to the center casting 2, oppositely extending members consisting of flanged diaphragms 4 with their flanges extending outwardly. The bolster also comprises an upper continuous tie member 5, perforated at 6, at its center, to receive the king pin 3. Tie member 5 is secured at its outer end to an angle running along the upper edge of the side sill 7. The bolster is also provided with a lower tie member 8, perforated at 9 to receive the king pin 3 and continuous across the car. Tie member 8 is bent down at each end and secured to side sill 7. Lower tie member 8 is shown as of a width substantially equal to the distance between the outer edges of the diaphragms 4. Interposed between the diaphragms 4 and the center sills 1 are filler plates 10 extending beyond the vertical plane of the edges of the upper tie member 5.

11 is the center bearing plate shaped to fit the lower tie member 8 and secured in place through means of bolts 12. Of course the center bearing plate 11 is perforated to receive the king pin 3.

13 represents corrugated sheet metal, or metal with an uneven surface, extending transverse the car and riveted to the center sills and overlapping the edges of the upper tie member 5 to which it is also riveted.

14 are longitudinal intermediate sectional sills or struts riveted to transoms 15 and bolster diaphragms 4 and to which the corrugated metal 13 is also riveted or secured.

16 are metal clips secured to the upper tie

member 5, of suitable number and location and having wings spaced from the surface of the upper tie member 5.

17 represents the flooring of the car or suitable substance or composition which is applied in a plastic form so as to become embedded in the recesses in the metal sheeting 13 and embedded beneath and around the clips 16 so that said flooring is securely tied to the underframe.

18 is a longitudinal corrugated wooden flooring strip extending centrally over the flooring 17 throughout the length of the car from platform to platform.

19 represents a facing of wooden blocks arranged about the king pin 3 to form a recess covered by a plate 20. Facing 19 is a depth equal to the depth of the corrugated flooring strip 18. The flooring 17 may be of suitable extent and preferably extends entirely across the car between the inner lining (not shown).

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In a car understructure comprising a center sill, a perforated center casting recessed to receive said center sill, a king pin passed through the perforation of said casting and a drawbar carried by the king pin and said casting.

2. In a car understructure comprising a center sill, a perforated center casting recessed to receive said center sill and having a second recess in combination with a king pin passed through said perforation and a drawbar held in the second of said recesses by said king pin.

3. In a car understructure, a center casting having a vertical perforation therein and a horizontal recess in combination with a king pin passed through said perforation and a drawbar held in said recess by said king pin.

4. In a car understructure comprising a center sill, a perforated center casting having a recess therein below the plane of said center sill in combination with a king pin passed through said perforation and a drawbar held in said recess by said king pin.

5. In a car understructure comprising a center sill and a bolster member, a perforated center casting having a recess therein below said center sill in combination with a king pin passed through said perforation and a drawbar held in said recess by said king pin.

6. In a car understructure comprising a center sill and bolster member, and a center casting having a recess below said center sill all secured together with bolster tie members extending above and below said center casting in combination with a king pin passed through said center casting and a drawbar held in said recess by said king pin.

7. In a car understructure, a perforated center casting having a horizontal recess in combination with a king pin passed through said perforation, a drawbar held in said recess by said king pin, a perforated tie member extending beneath said casting and secured thereto, and a center bearing plate beneath said tie member and secured to said casting.

8. In a car understructure comprising a center sill and a bolster member of greater depth than said center sill, a center casting extending beneath said center sill and bolster member and tie members above and below said casting for tying said parts together.

9. In a car understructure, a perforated center casting having semi-circular recess with flaring sides in combination with a king pin passed through said perforation and a drawbar held in said recess by said king pin.

The foregoing specification signed at McKees Rocks, Allegheny county, Pennsylvania, this second day of July, 1908.

JOHN F. STREIB.

Witnesses:
T. J. JONES,
G. C. LAMBE.