

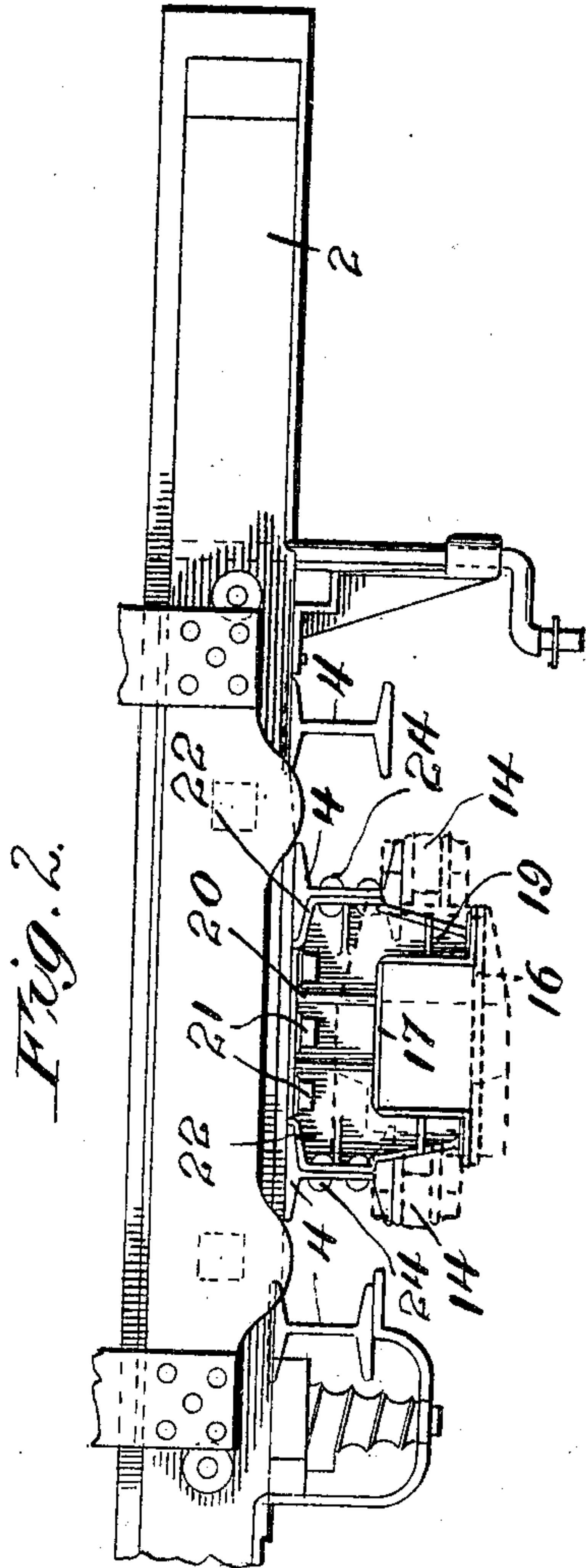
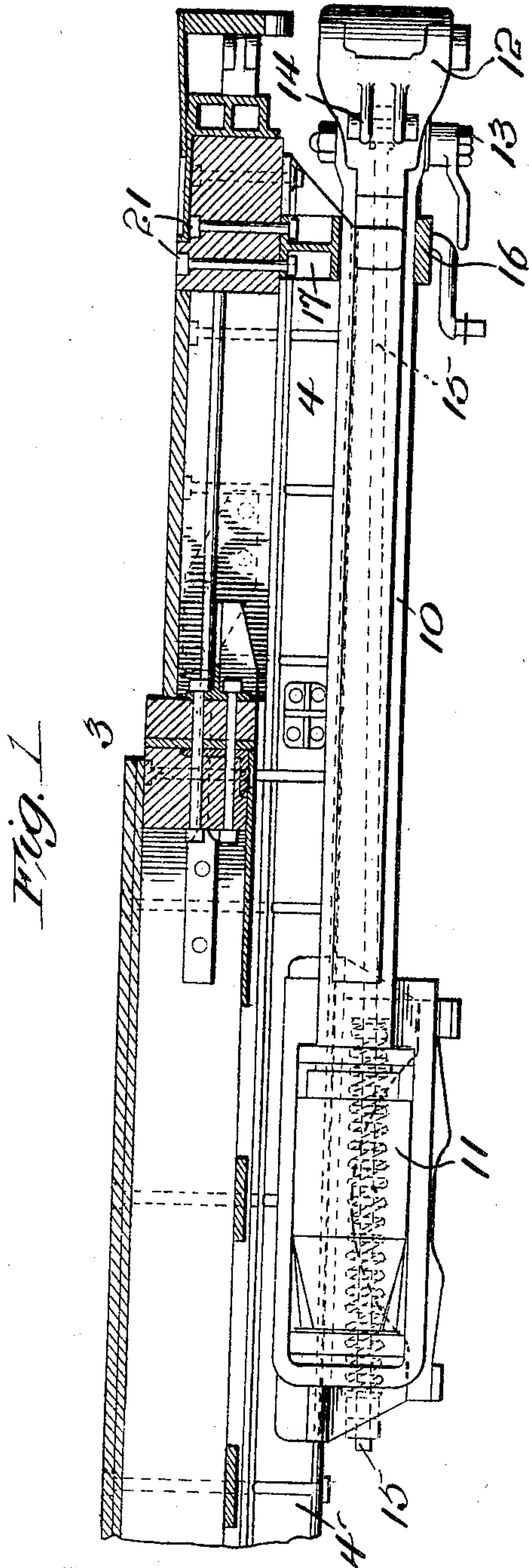
No. 812,720.

PATENTED FEB. 13, 1906.

B. S. BROWN.
CENTER STEM GUIDE FOR CAR BODIES.

APPLICATION FILED JULY 20, 1905.

2 SHEETS—SHEET 1.



WITNESSES

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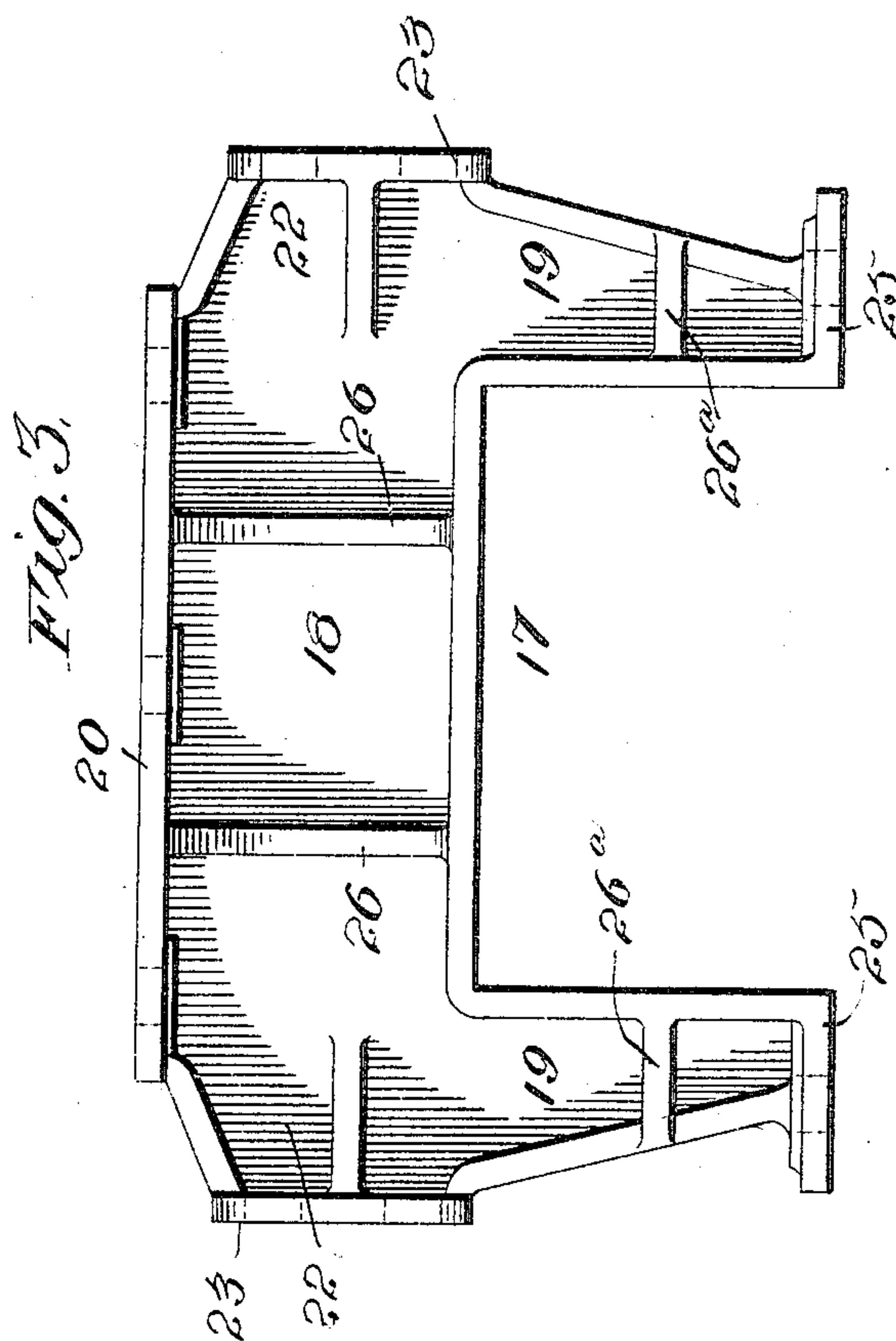
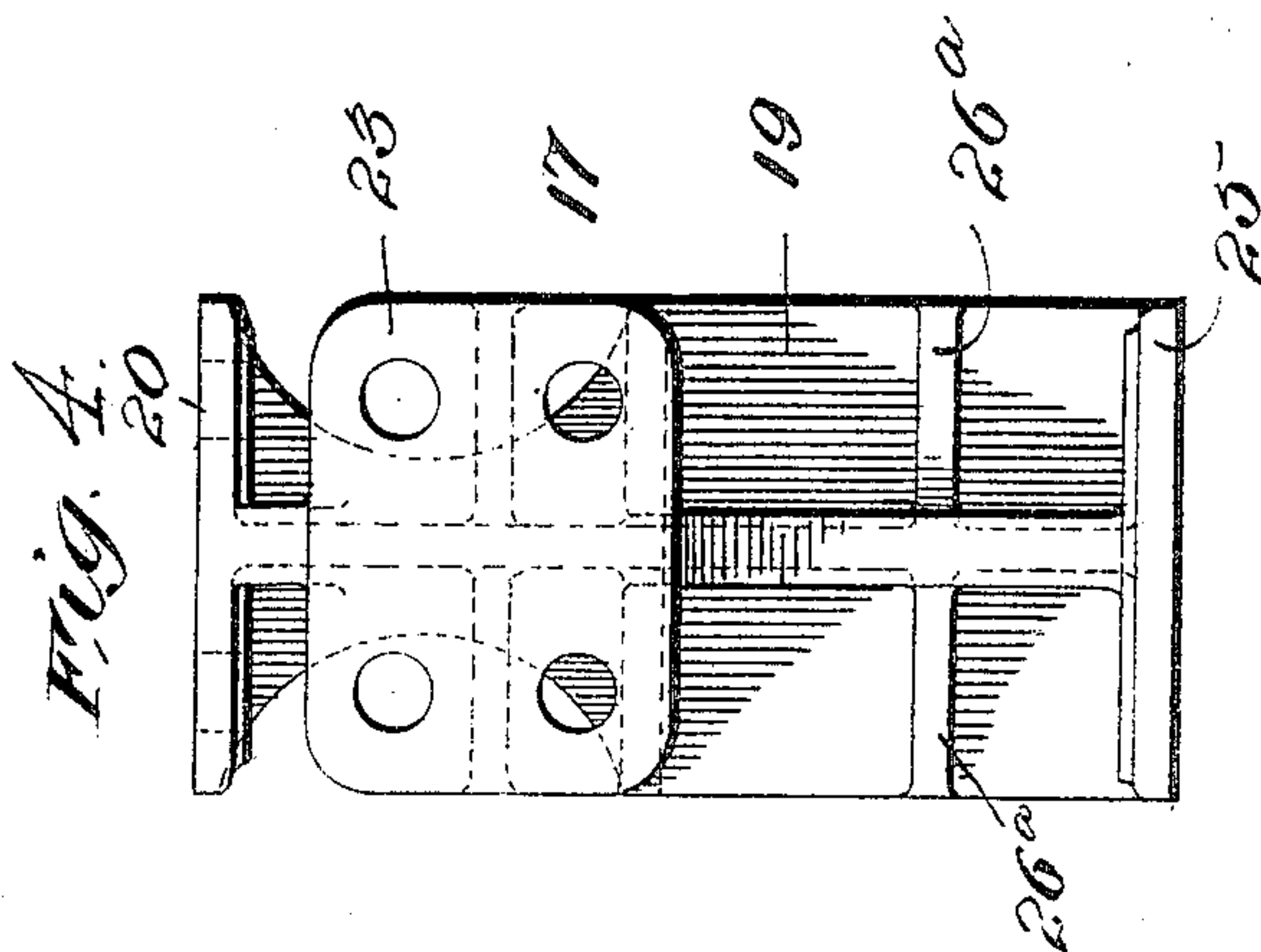
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UNITED STATES PATENT OFFICE.

BENJAMIN S. BROWN, OF ALTOONA, PENNSYLVANIA.

CENTER-STEM GUIDE FOR CAR-BODIES.

No. 812,720.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed July 20, 1905. Serial No. 270,480.

To all whom it may concern:

Be it known that I, BENJAMIN S. BROWN, a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Center-Stem Guides for Car Bodies, of which the following is a specification.

This invention relates to car-body construction, and has special reference to certain improvements designed for use in connection with car-bodies of the passenger-coach type.

To this end the invention primarily has in view a novel construction of center-stem guide and end-platform-stiffening piece associated with the car-body in such a manner as to contribute materially to the stiffening and reinforcing thereof, while at the same time acting as a guide for the center stem or draw-bar.

With these and other objects, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts, which will be hereinafter more fully illustrated, described, and claimed.

The essential features of the invention involved in carrying out the objects above indicated are necessarily susceptible to structural modification without departing from the spirit or scope of the invention; but a preferred embodiment is shown in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of a car-body base, illustrating the present invention and showing the center stem or draw-bar, the draft-gear therefor, and the coupling-head in elevation. Fig. 2 is an end view showing the mounting of the center-stem guide and end-platform-stiffening piece. Figs. 3 and 4 are detail side and end views, respectively, of the improved center-stem guide.

Like reference-numerals designate corresponding parts in the several figures of the drawings.

In carrying out the present invention no change is required in the general construction and relative arrangement of parts as embodied in the steel reinforced type of framing or framework for car-body bases usually associated with vestibuled structures such as are common to Pullman and similar cars. Hence there is shown in the drawings the car-body base-frame, embodying in its gen-

eral organization a plurality of longitudinally-arranged frame-stringers 1, extending the full length of the car-body base and also having the end-platform extensions 1^a, supporting and carrying at their outer extremities the usual outer end-platform sill 2, which is arranged beyond and in substantial parallelism to the main car-body end sill 3. The longitudinally-arranged frame-stringers 1 have associated therewith steel reinforcement-girders 4, arranged beneath and in parallelism thereto and extending the full length of the said stringers and their platform extensions, as plainly indicated in Fig. 2 of the drawings. In this form of construction the steel reinforcement-girders preferably consist of I-beams of standard or suitable dimensions, which beams are braced and fastened to the framing or framework of the car-body base in a manner common to this form of construction to provide a strongly reinforced and trussed car-body capable of withstanding severe shocks and strains without weakening or otherwise impairing the strength and stability of the car-body.

In the car-body construction shown the center-stem or draw-bar member 10 has associated with the rear end thereof the usual draft-gear 11, and the front end of the said sill 2 pivotally supports thereon a horizontally-swinging coupling-head 12. This coupling-head 12 has a vertical pivot connection 13 to the front end of the center stem 10, and to diametrically opposite sides of the coupling-head 12, as at 14, are pivotally connected the front ends of the side centering-stems 15.

The front end portion of the center-stem or draw-bar member which carries the horizontally-swinging coupling-head 12 is properly guided and supported upon the carry-iron 16, which extends transversely beneath the center stem and constitutes the bottom bridge or yoke piece of the improved center-stem guide 17 contemplated by the present invention. This device by reason of its construction and arrangement is technically termed a "center-stem guide and end-platform-stiffening piece," inasmuch as the same is fastened centrally to the under side of the outer platform-sill 2, as plainly shown in Figs. 1 and 3 of the drawings. However, for the purpose of this application the technical title of this car-body detail is abbreviated to the expression "center-stem guide."

A distinctive feature in connection with the car-body detail or center-stem guide 17

resides in the fact that the same consists of a one-piece or integral casting in contradistinction to the constructions heretofore employed made up of a number of parts or pieces.

5 The casting constituting the guide 17 is constructed with special reference to strength and reinforcement for resisting strains in various directions, such as may be imposed upon either the center-stem or draw bar direct or upon the outer platform-sill from which the latter is suspended. The center-stem-guide casting 17 is of an approximate inverted-U shape, and the same essentially consists of a main upper horizontal portion 15 18 and the terminal pendent hanger-legs 19 at the ends of the horizontal portion. The upper horizontal portion 18 of the casting or body 17 is formed at the top with a flat horizontal flange-fastening base 20, adapted to be bolted directly to one side of the sill 2 through the medium of the fastening-bolts 21 passing through the side flanges of the base 20 and vertically through the sill 2, as shown in Fig. 1 of the drawings. In addition 25 to the top fastening-base 20 the guide-casting 17 has formed at the ends of its upper horizontal portion 18 the tapering end bracket projections 22, provided with vertically-disposed flat attaching-bases 23. In this connection it will be observed by reference to 30 Fig. 3 of the drawings that the center-stem guide 17 lies between a pair of the longitudinal girders or I-beams 4, and the tapering bracket extensions 22 register in the adjacent recessed sides of said girders, and the attaching-bases 23 are bolted or riveted to the webs of the girders or beams by the fastenings 24, as plainly shown in Fig. 3 of the drawings.

40 The terminal pendent hanger-legs 19 are provided at their lower extremities with flange-feet 25, to which are bolted the ends of the carry-iron 16.

The casting forming the center-stem guide 45 17 is preferably of an I form in cross-section, with integral bracing or trussing webs lying between the flanges of the eye. In the upper horizontal portion 18 the bracing or trussing webs 26 are vertically disposed between 50 horizontal flanges, while in the legs of the casting the webs 26^a are horizontally disposed between upright flanges.

Referring to the mounting of the side centering-stems 15, the said stems, as usual, extend rearwardly from their pivotal point of connection 14 with the coupling-head 12 to points in the horizontal plane of the main draft-gear 11.

From the foregoing it is thought that the construction, use, and advantages of the 60 herein-described improvements will be readily apparent to those familiar with the art without further description.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is— 65

1. In a car-body, the combination with the base-frame and the platform-extension beams, of a center-stem guide consisting of a single casting supporting the carrier-iron and provided with an integral top-fastening piece 70 secured to the platform-sill, and with flat end bracket extensions secured to the sides of adjacent platform-extension beams.

2. In a car-body, the combination with the base-frame and the platform extension having I-beams, and the center stem, of a center-stem guide consisting of a single casting fastened to the platform-sill and also to the adjacent I-beams. 75 80

3. In a car-body, the combination with the base-frame and platform extension having I girders or beams, and the center stem, of a center-stem guide consisting of a single casting supporting the carry-iron and provided with a top-fastening base secured to the platform-sill and with end bracket extensions secured to adjacent I girders or beams. 85

4. In a car-body, the combination with the base-frame and platform extension having I-girders, and the center stem, of a center-stem guide consisting of a single casting supporting the carry-iron and provided with a top-fastening base secured to the platform-sill, and with tapering end bracket projections having vertical flat attaching-bases, said bracket extensions registering in and secured to the sides of adjacent I-girders. 90 95

5. In a car-body, the combination with the base-frame and platform extension having I-girders, and the center stem, of a center-stem guide consisting of a single casting supporting at the bottom the carry-iron for the center stem, said center-stem guide consisting of flanged and webbed casting provided at the top with a fastening-base secured to the platform-sill, with end tapering bracket projections registering in and secured to adjacent I-girders, and terminal flanged hanger-legs for the carry-iron. 100 105 110

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN S BROWN.

Witnesses:

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N. E. GEE.