

No. 736,515.

PATENTED AUG. 18, 1903.

W. S. GLOVER.
RAILWAY CAR.

APPLICATION FILED JUNE 9, 1903.

NO MODEL.

2 SHEETS—SHEET 1

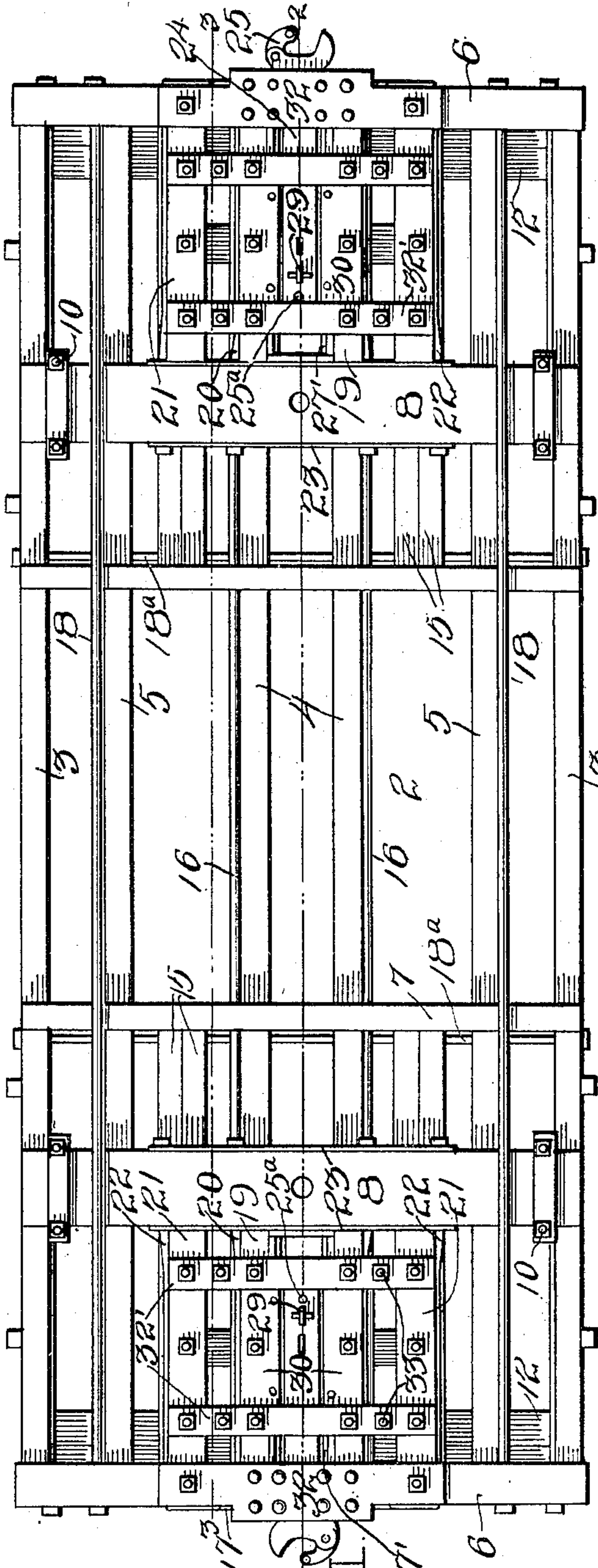


Fig. 1.

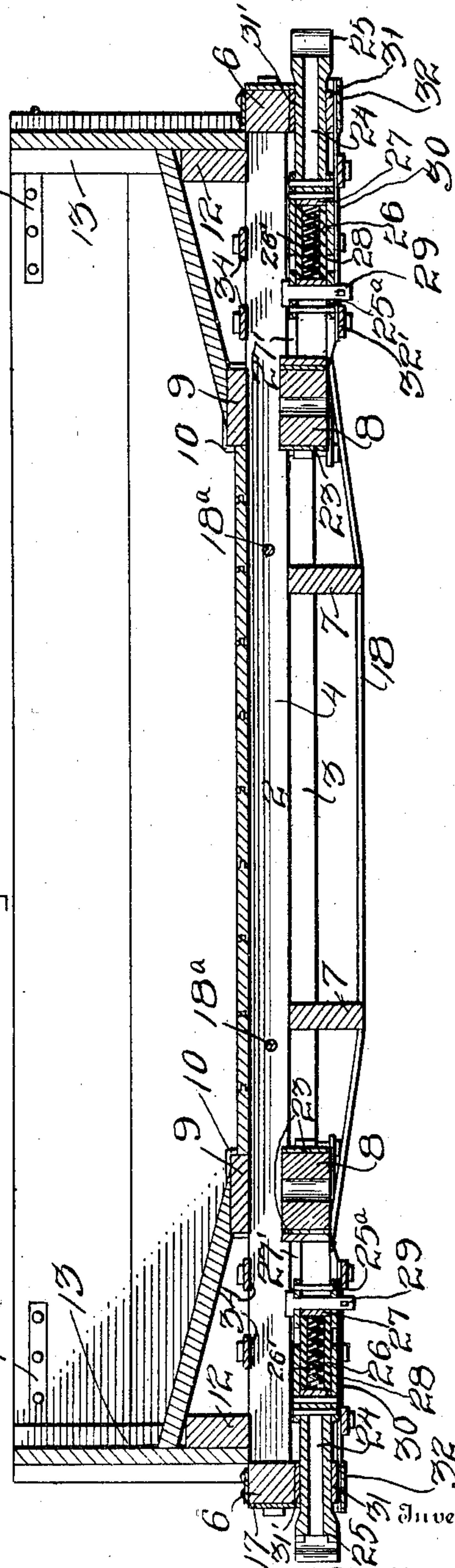


Fig. 2.

Witnesses
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Fig. 3.

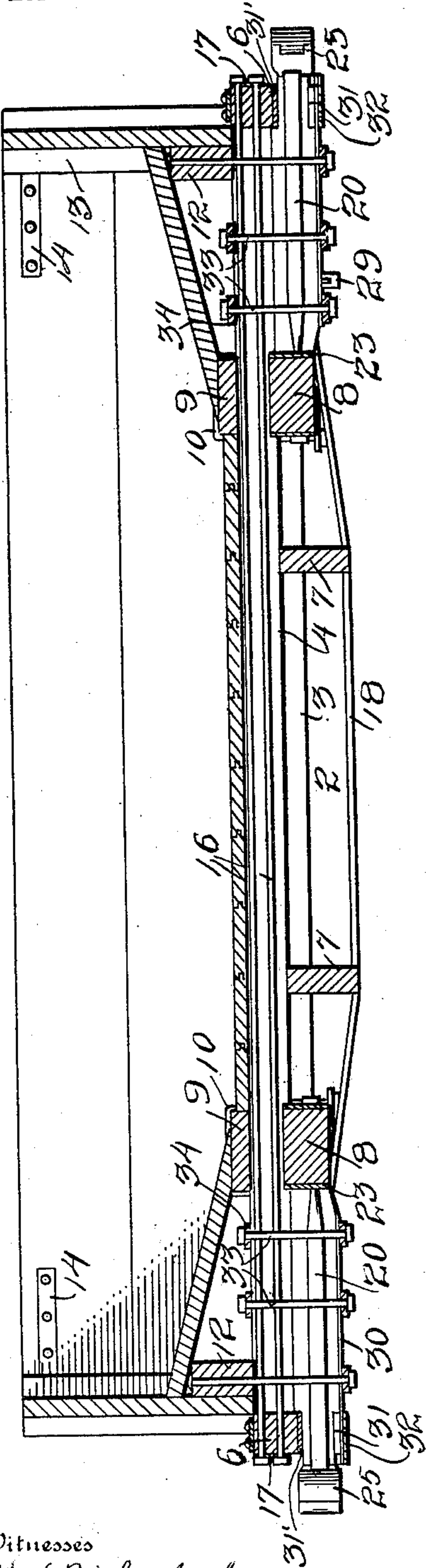


Fig. 4.

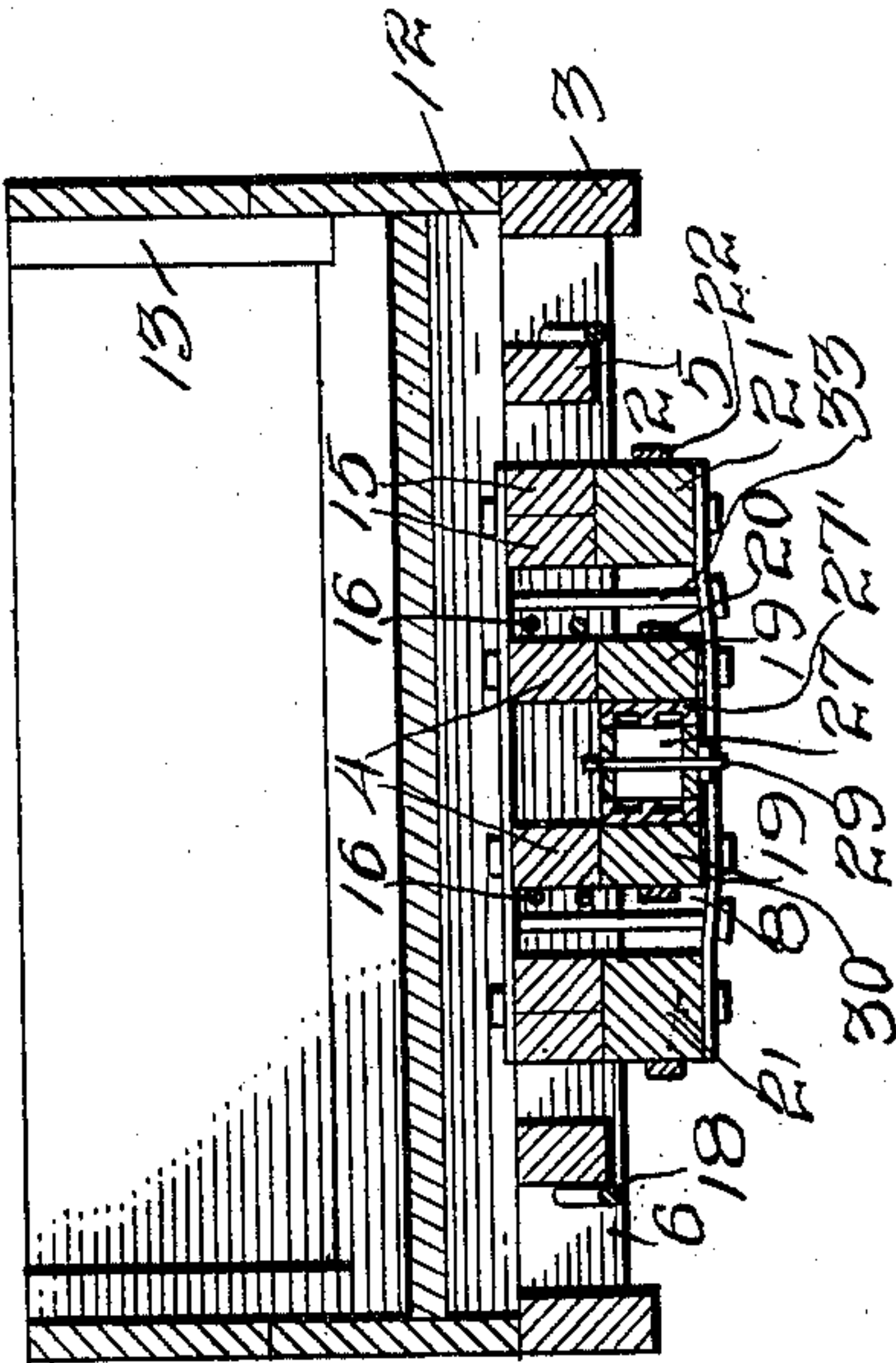
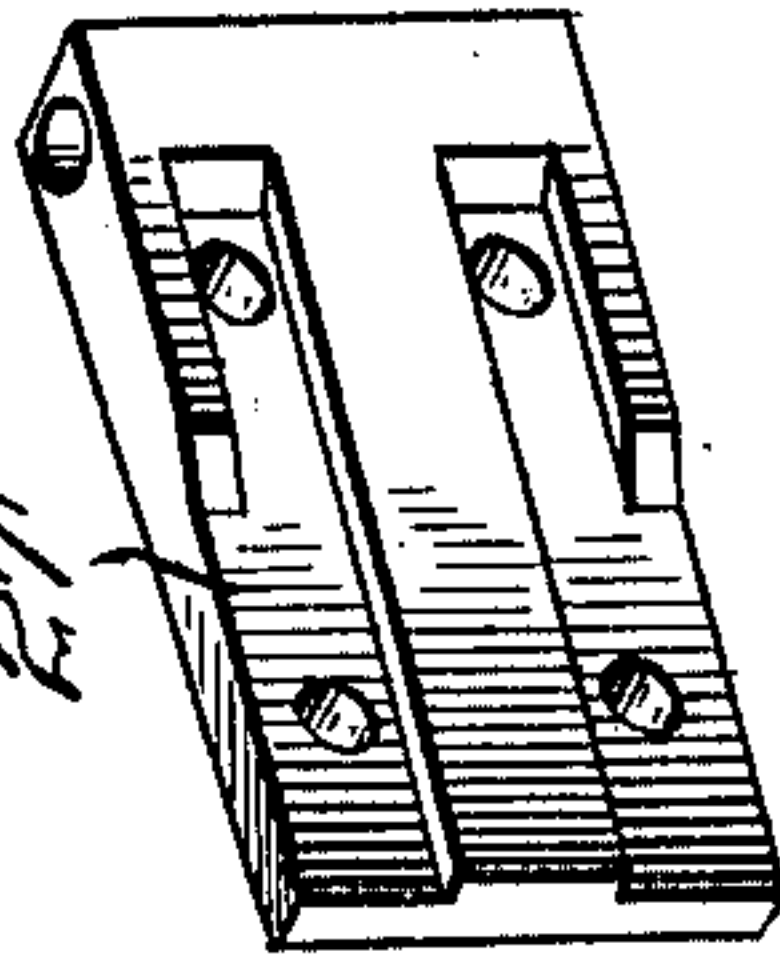


Fig. 5.



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WILLIAM S. GLOVER, OF MOUNT BRADDOCK, PENNSYLVANIA.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 736,515, dated August 18, 1903.

Application filed June 9, 1903. Serial No. 160,732. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. GLOVER, a citizen of the United States, residing at Mount Braddock, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Cars; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in railway-car construction.

The object of the invention is to improve the construction of the draft-gearing of coal-cars to make the same stronger and more durable and also to reinforce the structural framework of the car.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a bottom plan view of a car embodying the invention. Fig. 2 is a longitudinal sectional view of the same on the line 2 2 of Fig. 1. Fig. 3 is a similar view on the line 3 3 of Fig. 1. Fig. 4 is a cross-sectional view, and Fig. 5 is a detail perspective view, of the draft-stop casting.

In the drawings, 1 denotes the body of a coal-car.

2 denotes the structural framework of the car, consisting of the outer longitudinal side rails or sills 3, the central rails or sills 4, and the intermediate rails or sills 5.

6 denotes the end cross-sills, and 7 the intermediate cross-sills or brace-bars which connect the longitudinal rails or sills together.

8 denotes the body-bolsters arranged near each end of the car beneath the longitudinal rails or sills, and 9 denotes the body-bolster supports arranged above the bolsters 8 and on top of the longitudinal sills, the bolsters 8 and the supports 9 being connected together by stirrups 10.

12 denotes supports for the ends of the longitudinal rails or sills, the same being bolted to the end planks of the car-body, and to said supports are bolted all the longitudinal rails or sills of the car.

13 denotes corner braces or supports, through which and the end planks pass strap rods or bolts 14, which are connected to the side planks and standards to securely hold and brace the corners of the car-body.

15 denotes short longitudinal rails or sills extending from the end cross-sills to the intermediate brace-bars 7.

16 denotes four longitudinally-disposed tie-rods arranged in pairs along one side of the central sills 4 and extending throughout the length of the car and through the end cross-sills, where they are headed against metal plates 17, arranged on the end sills.

18 denotes truss brace-rods arranged near the outer side rails and extending throughout the length of the car below the bolsters and brace-bars 7 and having their ends connected to the end sill in the same manner as the tie-rods 16, and 18^a denotes two or more cross tie-rods which pass through the longitudinal rails or sills and through the short sills, securely holding these parts in position.

19 denotes the draft-timbers arranged on each side of the draw-bar. The outer ends of the timbers 19 are bolted to the end sills and the inner ends are connected to the bolsters 8. Strap-bolts 20 have a hooked engagement at one end with the outer ends of the timbers 19, and the opposite ends of the bolts 20 pass through the bolsters 8 and are threaded for the reception of a nut which bears against the bolsters 8 and securely holds the timbers 19 in place. The timbers 19 are further strengthened by being bolted to the central rails or sills 4.

21 denotes auxiliary draft-timbers arranged at each side of the timbers 19, being bolted to the end sills and the short rails or sills 14 and connected to the bolsters 8 by strap-bolts 22 in the same manner as the timbers 19. Reinforcing-plates 23 are arranged on each side of the bolsters 8 and through which the ends of the strap-bolts 20 and 22 pass.

24 denotes the draw-bars to which the coupler-heads 25 are attached and which are connected at their inner ends by a bolt 25^a. Between the draw-bars is arranged a rubber buffer 26, having a central longitudinally-disposed hole 26' formed through the same. Follower-plates 27 are arranged at each end of the rub-

ber buffer, the follower-plates and buffer being confined between draft-stops or check-plates 27', bolted to the sides of the draft-timbers 19. A heavy coiled buffer-spring 28 is arranged in the hole 26' of the buffer 26 and is confined between the follower-plates 27. A draw-bolt or key 29 is adapted to pass through the draw-bars 24 in rear of the inner follower-plate 27, by means of which the car is drawn.

30 denotes plates bolted to the under sides of the draft-timbers 19, and on said plates are formed flanges which overlap the buffer and buffer-plates and hold the same in place.

31 and 31' denote plates arranged below and above the draw-bar at the end of the draft-timbers, and beneath the plate 31 is a supporting plate or brace 32. The plates 31 and 31' and the brace-plate 32 are all securely bolted to the end cross-sills 6. If the draw-bolt or key should break, the draw-bars and head would be prevented from withdrawal by the plates 31 and 31'.

32' denotes two additional supporting straps or plates arranged beneath the plates 30 and the draw-bar and having their ends bolted to the draft-timbers 19 and 21 and being further held by bolts 33, which pass upwardly through the same and between the draft-timbers and connect with cross plates or strips 34, arranged on the upper sides of the longitudinal rails or sills of the car.

From the arrangement and construction of the parts as herein shown and described it will be seen that a strong and well-braced framework is formed which will be capable of standing more than the ordinary amount of hard usage.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. In a railway-car, the combination of a supporting-framework consisting of horizontally-arranged rails or sills, connected by cross-sills, longitudinally-disposed tie-rods extending throughout the length of said car, and fastened in the end cross-sills, cross tie-

rods passing through said longitudinal sills, body-bolsters and bolster-supports arranged above and below said longitudinal sills and securely connected together, draft-timbers arranged on each side of a draw-bar and auxiliary draft-timbers adapted to reinforce the first-mentioned draft-timbers, and means for securely holding said draft-timbers in place, substantially as described.

2. In a railway-car, the combination with a body having suitably-braced corners, of a supporting-framework, consisting of longitudinally-arranged, central, side and intermediate sills, and short longitudinal sills, connected together by means of end cross-sills and intermediate cross-braces, longitudinally-disposed tie-rods extending throughout the length of said framework and fastened in said end sills, cross tie-rods passing through said longitudinal sills and fastened in said side sills, body-bolsters and bolster-supports arranged above and below said longitudinal sills and bolted together by stirrup-bolts, draft-timbers arranged on each side of and adapted to support and guide a draw-bar, rubber and spring buffers arranged between said draft-timbers, draft-stops or check-plates bolted to said draft-timbers to hold said rubber buffer in place, auxiliary timbers arranged at the sides of the first-mentioned draft-timbers, said timbers being bolted to the central and short longitudinal sills, strap-bolts having one end hooked around the ends of said draft-timbers and the opposite ends connected to said body-bolsters, supporting plates and straps arranged above and beneath said draw-bar and bolted to said end cross-sills to securely brace and hold the parts in place, substantially as described.

3. The combination with the sills, bolsters, and draft-timbers of a car-supporting framework of auxiliary draft-timbers arranged at the sides of the first-mentioned draft-timbers, strap-bolts having one end hooked over the ends of said timbers and the opposite end connected to said bolsters to hold said timbers in place and supporting plates and straps arranged beneath and bolted to said timbers, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM S. GLOVER.

Witnesses:

CHARLES M. FEE,
ROY F. KNOTTS.