

No. 725,175.

PATENTED APR. 14, 1903.

J. A. THORSELL.
BOLSTER FOR RAILWAY CARS.

APPLICATION FILED FEB. 17, 1903.

NO MODEL.

3 SHEETS—SHEET 1.

Fig. 1.

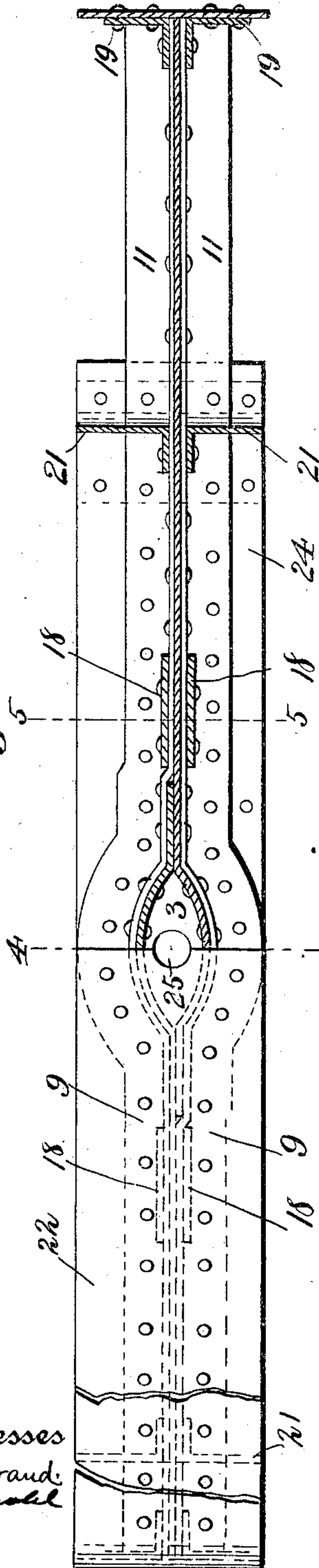


Fig. 2.

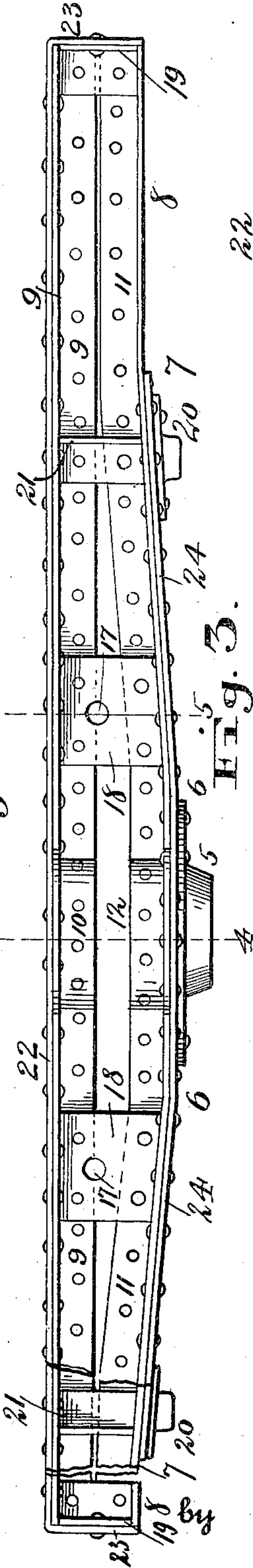
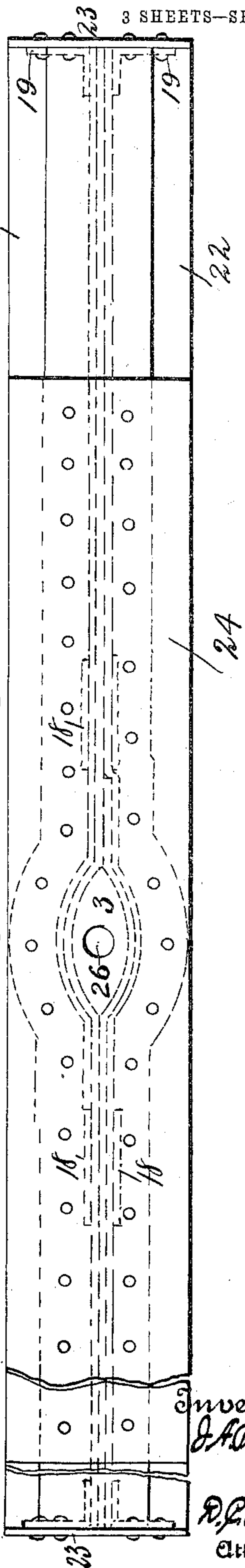


Fig. 3.



Witnesses
J. L. Orraud.
H. R. Reinhold.

Inventor
J. A. Thorsell.
D. P. Reinhold.
Attorney

No. 725,175.

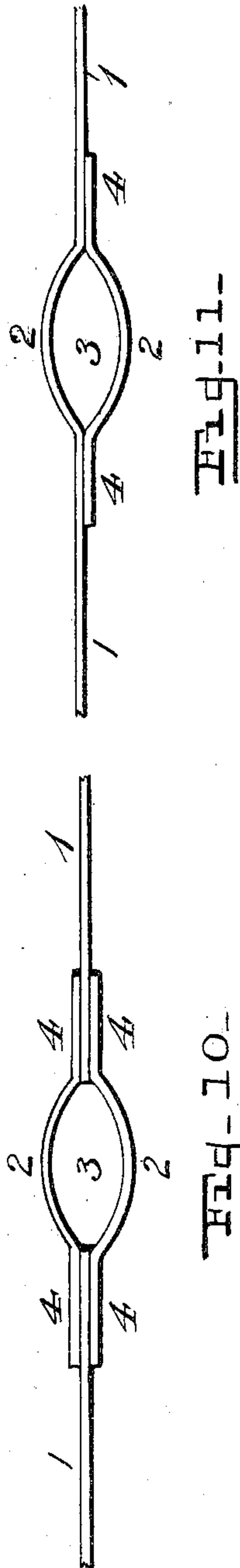
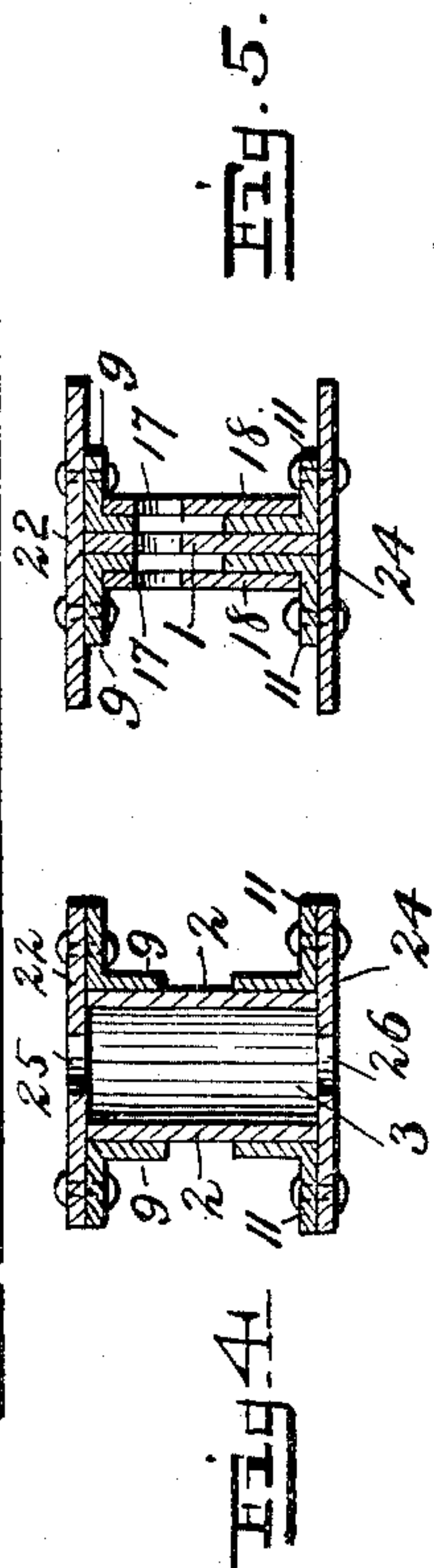
PATENTED APR. 14, 1903.

J. A. THORSELL.
BOLSTER FOR RAILWAY CARS.

APPLICATION FILED FEB. 17, 1903.

NO MODEL.

3 SHEETS—SHEET 2.



No. 725,175.

PATENTED APR. 14, 1903.

J. A. THORSELL.
BOLSTER FOR RAILWAY CARS.

APPLICATION FILED FEB. 17, 1903.

NO MODEL.

3 SHEETS—SHEET 3.

Fig. 7

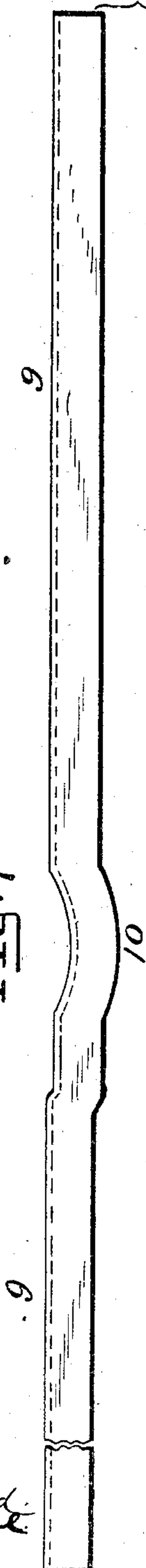


Fig. 8

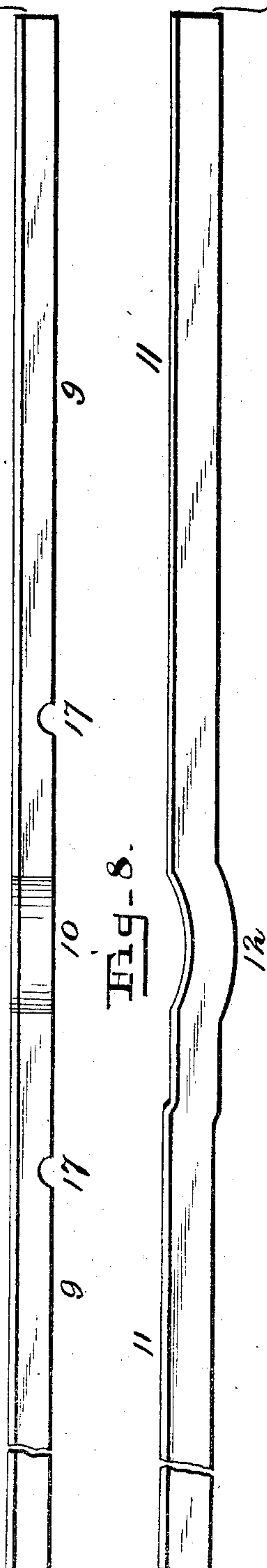
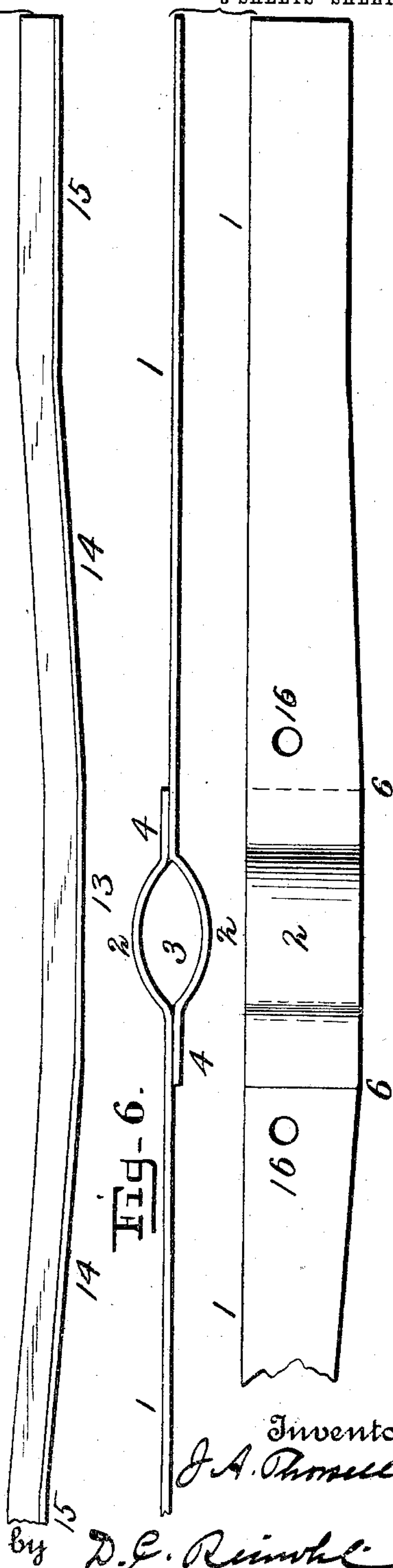


Fig. 6



Witnesses
F. L. Ormand
H. P. Arnold

Inventor
J. A. Thorsell

by D. C. Reinhold
Attorney

UNITED STATES PATENT OFFICE.

JEAN A. THORSELL, OF PITTSBURG, PENNSYLVANIA.

BOLSTER FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 725,175, dated April 14, 1903.

Application filed February 17, 1903. Serial No. 143,805. (No model.)

To all whom it may concern:

Be it known that I, JEAN A. THORSELL, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Bolsters for Railway-Cars; and I do hereby 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.

My invention relates to railway-cars, has especial reference to bolsters made of structural or commercial steel or iron, and has for its object strength and durability with a reduction in weight as compared with bolsters of this type in use; and the invention consists, primarily, in the use of a single web as the main member or body of the bolster, as will be fully disclosed in the following specification and claims.

In the accompanying drawings, which form part of this specification, Figure 1 represents a top plan view, partly in section, of my invention; Fig. 2, a side elevation of the same; Fig. 3, an inverted plan view with the center plate and the side bearings removed; Fig. 4, a vertical transverse section on lines 4 4, Figs. 1 and 2; Fig. 5, a like view on lines 5 5 on the same figures; Fig. 6, a top plan view and a side elevation of the web or body detached; Fig. 7, a like view of one of the angle-plates on the top or upper side of the bolster; Fig. 8, a like view of one of the angle-plates on the bottom or lower side of the bolster; Fig. 9, a like view of the top plate of the bolster; Fig. 10, a top plan view of a modified construction of the web, and Fig. 11 a like view of another modified form of the web.

Reference being had to the drawings and the designating characters thereon, 1 indicates the web or body of the bolster, provided with a lateral bend, bulge, or swell 2 on each side thereof, which forms a reinforce or brace for the web and the walls of a passage or chamber 3 for a king-bolt. (Not shown.) The web may be made of two members, as shown in Fig. 6, in which the adjacent ends of the members overlap, the ends 4 4 forming flanges, by which the two members are secured together by rivets in the usual manner of connecting structural iron, or it may be made of

four members, as shown in Fig. 10, in which there are two members 1 and two short members having the lateral bend, bulge, or swell 2 to form the passage 3 and flanges 4, or it may be made of one continuous member 1 having the lateral bend, bulge, or swell 2 and a short piece having the lateral bend 2 to form the passage 3 and flanges 4 4, by which this short or supplemental member is secured to the main member 1, as shown in Fig. 11. In all of these constructions the web is made of a flat bar of merchant metal, preferably steel, is deeper in the center than at its ends, as shown in Figs. 2 and 6, is parallel in width from its longitudinal center to a point in proximity to the outer edges of center bearing-plate 5, as indicated at 6 6, and inclines upward on each side of the center on its lower edge to about the points indicated by 7 7, from which points the web is parallel to its ends, as indicated by 8 8, and the upper edge of the web is straight, thus forming a cantaliver.

To each side of the web 1 and at the upper edge thereof is connected by rivets a laterally-extending plate 9 of "angle-iron," bent laterally at 10 to fit around the lateral bend, bulge, or swell 2 in the web 1, and to each side of the web, at the lower or bottom edge, is secured in like manner a laterally-extending plate 11 of angle-iron, bent laterally at 12 to fit around the bulge 2 in the web, and these plates are bent in the opposite direction to conform to the contour of the bottom edge of the web, as shown at 13, 14, and 15 in Fig. 8.

The web 1 is provided with holes 16 16 for the passage of a brake-operating rod, (not shown,) and in one of the flanges of the plate 9 are semicircular openings 17 for the same purpose, and over these holes and openings are riveted reinforcing-plates 18. (Shown in Figs. 1, 2, and 5.) To the ends of the web are secured right-angled plates 19 19, and over the side bearing-plates 20 are vertical braces 21 of angle-iron, also riveted to the web 1, as shown in Figs. 1 and 2.

22 indicates the top plate, which determines the width of the bolster, extends throughout its entire length, is bent down at 23 over the plates 19 19, and is secured thereto by rivets, and throughout its length is riveted to the laterally-extending plates 9, and the lower

side of the bolster is secured to the bottom plate 24, whose width is equal to the width of the top plate 22 and terminates at the points 7 on the web just outside of the bearing-plates 20.

The plate 22 is provided with an opening 25 and the plate 24 with an opening 26 for the passage of a king-bolt.

Having thus fully described my invention, what I claim is—

1. A bolster composed of a central web of flat metal, provided with a bulge or swell in the longitudinal center thereof, and plates riveted to both sides of the web and forming lateral extensions.

2. A bolster composed of a central web of flat metal provided with a bulge or swell in the longitudinal center thereof, and plates riveted to both sides of the web at the top and the bottom and forming lateral extensions.

3. A bolster composed of a central web of flat metal bent laterally at the longitudinal center thereof, tapering from a point near the center bearing-plate beyond the end bearing-plates, and plates conforming to the web riveted to both sides of the web and forming lateral extensions.

4. A bolster composed of a central web of flat metal bent laterally at the longitudinal center thereof, tapering from a point near the center bearing-plate beyond the side bearing-plates, and of the same width from near the side bearing-plates to the ends of the bolster, and having a straight upper or top edge, forming a cantaliver, and plates riveted to both sides of the web at the top and bottom and forming lateral extensions.

5. A bolster composed of a central web of flat metal bent laterally at the longitudinal center thereof, plates secured to both sides thereof, and a top plate extending to and secured to the ends of the bolster.

6. A bolster having a central web of flat metal composed of two members bent laterally and overlapping each other at the longitudinal center of the bolster, laterally-extend-

ing plates secured to the web, and a top plate extending the length of, down over and secured to the ends of the bolster.

7. A bolster composed of a central web of flat metal bent laterally at the longitudinal center thereof, laterally-extending plates riveted to both sides of the web, a top plate extending the length of the bolster and riveted to said laterally-extending plates, and a bottom plate extending beyond the end bearing-plates and riveted to the laterally-extending plates.

8. A bolster composed of a web of flat metal deeper in the center than at its ends and provided with a bulge or swell forming a king-bolt passage and a central lateral reinforce for the bolster, laterally-extending flanges secured to the sides of the web, a top plate and a bottom plate secured to said laterally-extending plates and provided with openings for the king-bolt.

9. A bolster composed of a central web of flat metal provided with a bulge or swell at its longitudinal center, laterally-extending plates secured to the web at its top and bottom, a top plate the length of the bolster, a bottom plate, center and side bearing-plates secured to said bottom plate, and laterally-extending vertical braces over the side bearings and secured to the web.

10. A bolster having a central web of flat metal of a single thickness approximately throughout its length, bent laterally and reinforced at its longitudinal center to form a king-bolt chamber or passage, laterally-extending plates riveted to the sides of the web, a top plate, and a bottom plate secured to the laterally-extending plates, and center and side bearing-plates secured to the bottom plate.

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

JEAN A. THORSELL.

Witnesses:

J. M. SKELLEY,
A. JUTH.