

No. 860,892.

PATENTED JULY 23, 1907.

J. McE. AMES.
CAR TRUCK BOLSTER.

APPLICATION FILED MAY 1, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

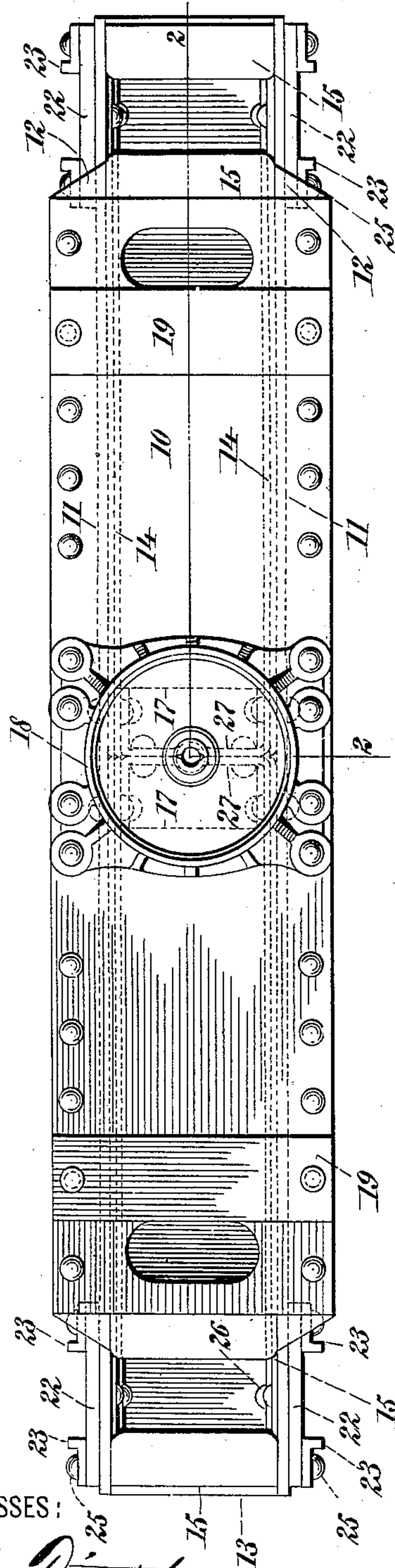
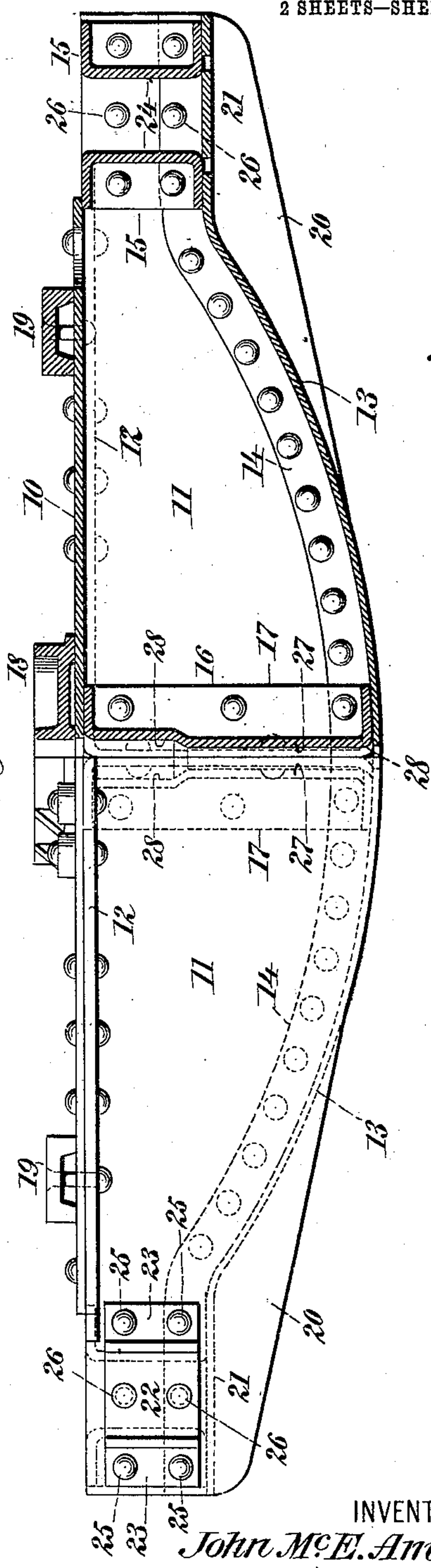


Fig. 2.



WITNESSES:

Gustave Dietrich
Edwin H. Dietrich

INVENTOR

John McE. Ames

BY

Chas. C. Yell

ATTORNEY

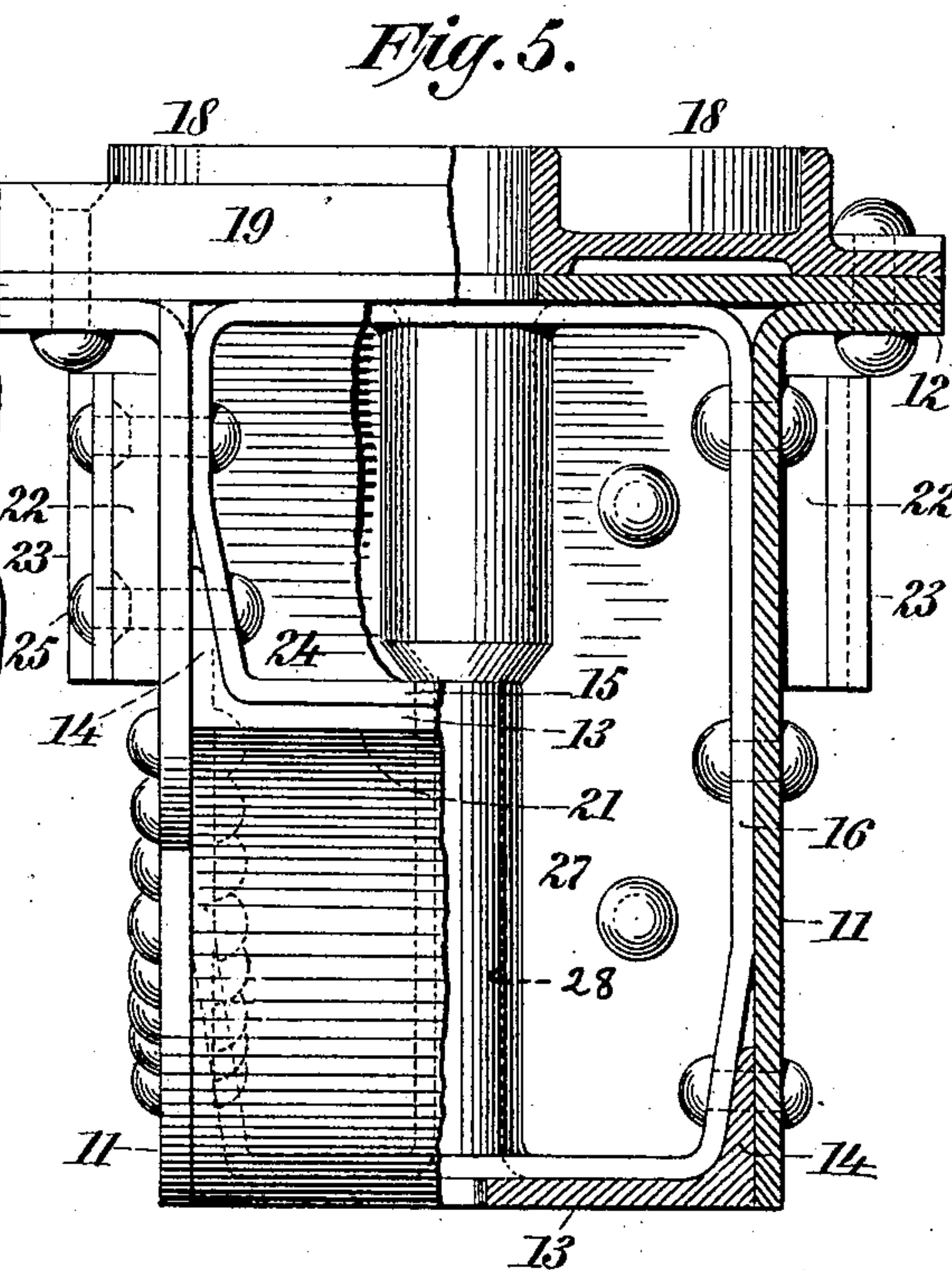
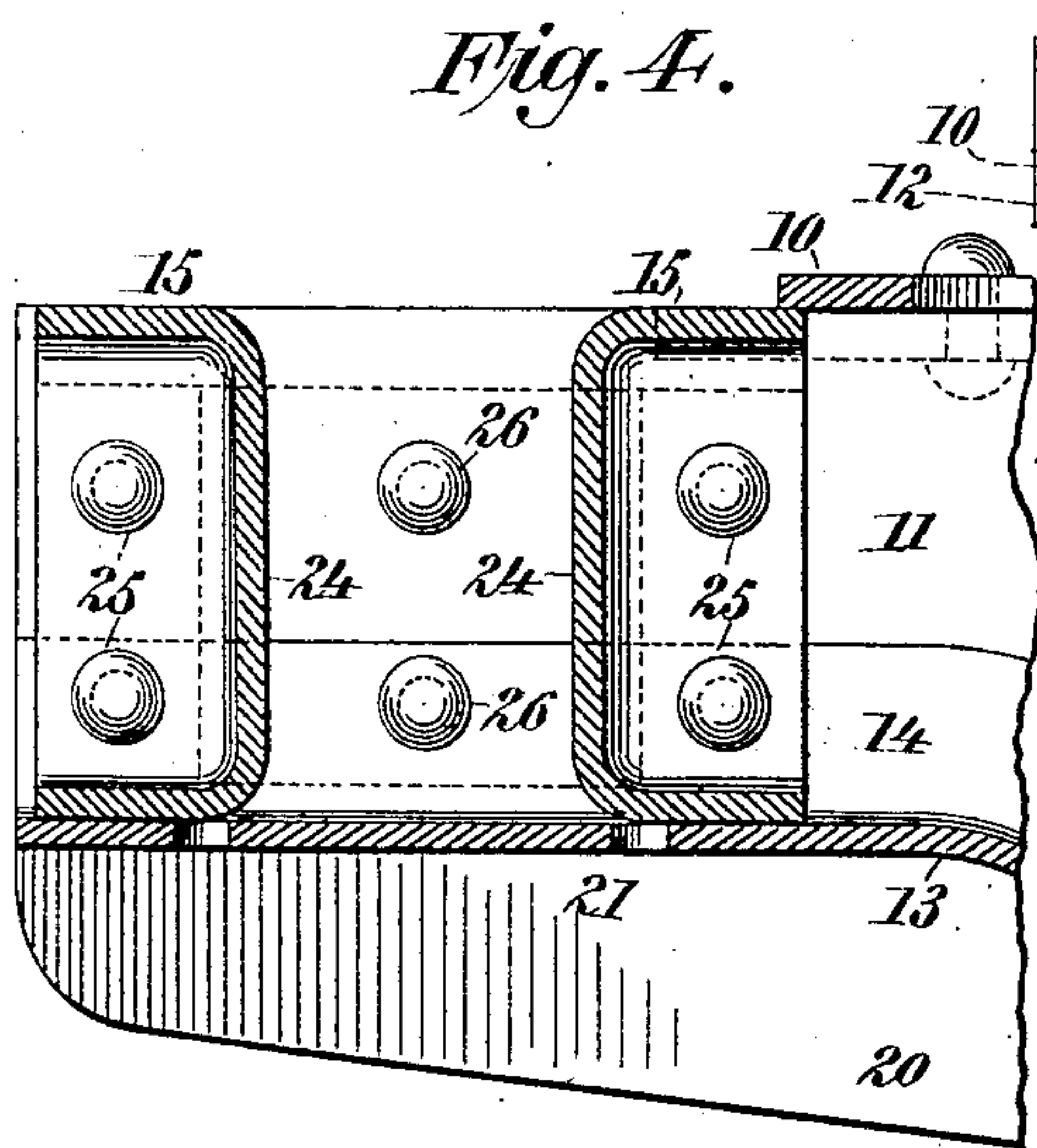
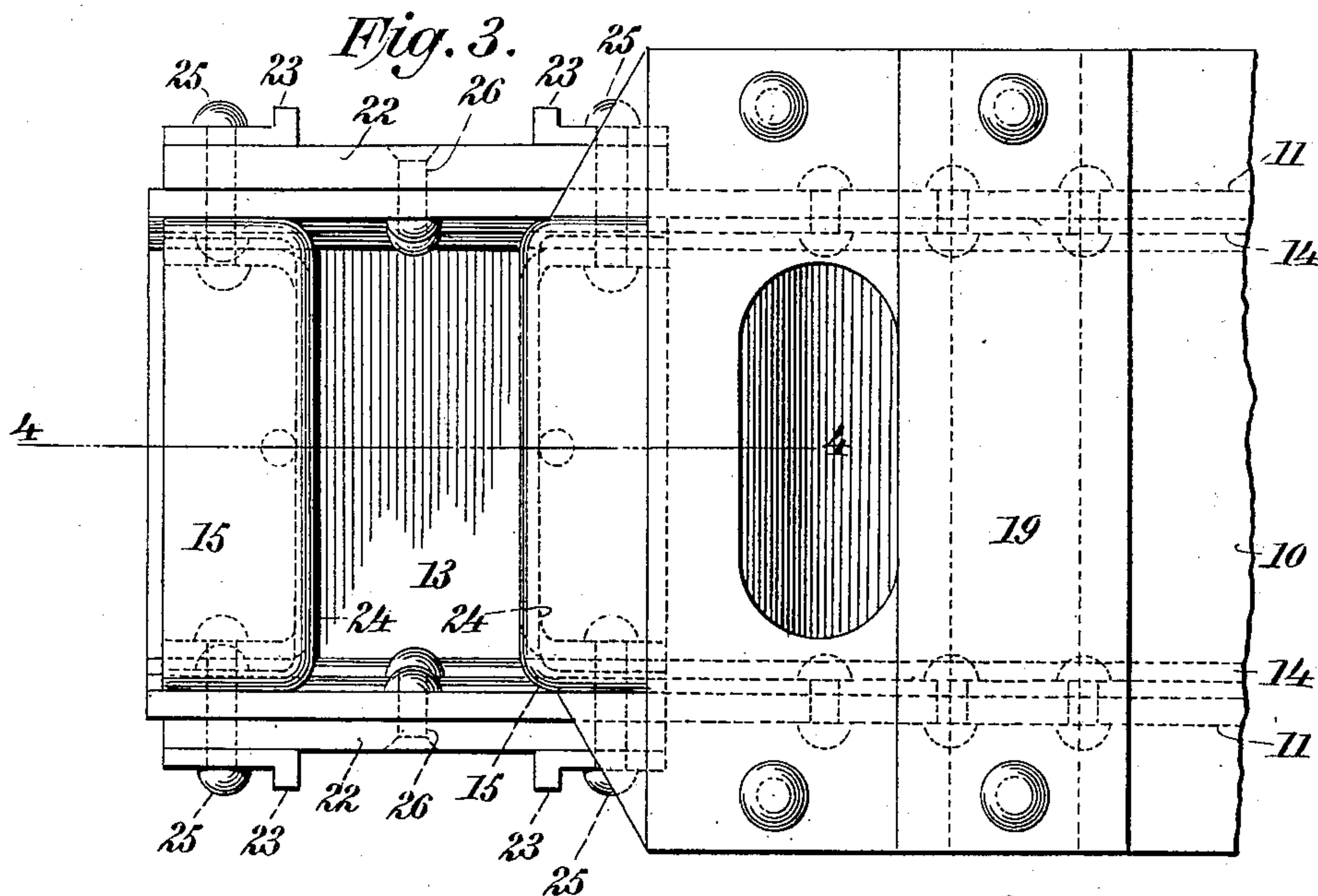
No. 860,892.

PATENTED JULY 23, 1907.

J. McE. AMES.
CAR TRUCK BOLSTER.

APPLICATION FILED MAY 1, 1907.

2 SHEETS—SHEET 2.



WITNESSES:

Gustave Dietrich
Edwin H. Dietrich

INVENTOR

John M. E. Ames

BY

Chas. O. Gill
ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN McE. AMES, OF DONGAN HILLS, NEW YORK, ASSIGNOR TO BENJAMIN A. HEGEMAN, JR., OF NORTH PLAINFIELD, NEW JERSEY.

CAR-TRUCK BOLSTER.

No. 860,892.

Specification of Letters Patent.

Patented July 23, 1907.

Application filed May 1, 1907. Serial No. 371,254.

To all whom it may concern:

Be it known that I, JOHN McE. AMES, a citizen of the United States, and a resident of Dongan Hills, in the county of Richmond and State of New York, have
5 invented certain new and useful Improvements in Car-Truck Bolsters, of which the following is a specification.

The invention relates to improvements in pressed-steel car-truck bolsters, and it consists in the novel features, arrangements and combinations of parts hereinafter described and particularly pointed out in the claims.

The object of the invention is to produce a highly efficient bolster capable of ready manufacture and possessing great strength and rigidity.

In the preferred construction, the bolster of my invention comprises a top-plate, side-plates whose upper edge portions are flanged outwardly and receive the rivets securing said top-plate, a channel-beam bottom or tension member whose flanges are between and riveted to said side plates, inner braces of dished form within the end portions of the bolster and riveted to said side-plates, and a pressed steel inner center-filler composed of two matched parts of dished form riveted together and to said side-plates, said bottom or tension member defining a bolster deepest at its middle portion and thence, at its bottom, curving upwardly toward its end portions which are horizontal to pass through the truck side-frames and rest upon the usual springs, and
20 said steel side-plates being extended below said bottom member along the adjacent curved and horizontal end portions of the latter at each side of each end of the truck, whereby the bolster at the points where pressed steel bolsters are most likely to break down is materially
25 strengthened.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Figure 1 is a top view of a bolster constructed in accordance with and embodying my invention; Fig. 2 is a side elevation, with one longitudinal half in central vertical section, of the same; Fig. 3 is an enlarged top view of one end portion of the same; Fig. 4 is a vertical longitudinal section of the same on the dotted line 4—4
45 of Fig. 3, and Fig. 5 is an end view, partly in central transverse section, of the bolster.

In the drawings, 10 designates the top-plate; 11 the side plates whose upper edges are flanged outwardly, as at 12, to receive the rivets securing said top-plate; 13 the bottom or tension member which is of channel shape and has its edge flanges 14 between and riveted to the said side-plates; 15 the inner dished shape end braces, and 16 the center-filler composed of the matched corresponding parts 17, 17 riveted together and to said
55 side-plates.

The top-plate 10 is a plain flat sheet steel plate of appropriate length and width and riveted to the flanges 12 of the side-plates 11, and said top-plate has secured upon it the center-bearing 18 and side-bearings 19.

The side-plates 11 are plain flat sheet steel plates 60 flanged outwardly at their upper edges, except at their end portions, and extending downwardly below the bottom member 13, as at 20, along those end portions of the latter where said bottom curves upwardly and thence extends horizontally, as at 21, to form reduced 65 end parts adapted to pass through the truck side-frames and rest upon the usual springs, not shown.

The bottom-member 13 is a rolled channel whose edge flanges 14 preferably extend upwardly and are riveted to the side-plates 11. The channel bottom 70 member 13 is bowed downwardly at its middle portions, as shown, to define a bolster which is deepest at its central portions.

Upon the opposite sides of each end of the bolster are secured the wearing-plates 22, upon which are secured 75 the column guides 23.

Within each end of the bolster are the box-like or dished braces 15, which are each in one integral plate pressed up to form a vertical transverse member 24 having top, bottom and side flanges extending from 80 the edges thereof and closely fitting between the side-plates 11 and against the inner surfaces presented by the bottom member 13, said side flanges at their lower portions converging downwardly and inwardly to engage the facing sides of the channel flanges 14. The 85 braces 15 are of great strength and I provide two of them at each end of the bolster, the braces being separated from each other and preferably having their vertical members 24 facing each other and about in line with the column guides 23. The braces 15 are secured 90 by rivets 25 which pass through the side flanges thereof and also through the side-plates 11, wearing-plates 22 and column-guides 23. The wearing-plates 22 are further secured to the side-plates 11 by rivets 26 whose inner heads are between the braces 15 of each pair. 95

The two corresponding parts 17 of the center-filler 16 are each in one integral plate pressed up to form a vertical transverse member 27 having a central vertical semi-circular recess 28 and top, bottom and side edge flanges extending outwardly and closely fitting the 100 inner walls at the center of the bolster, said side flanges at their lower portions converging downwardly and inwardly to engage the facing sides of the channel flanges 14. The filler parts 17 have their vertical members 27 in face to face contact and the recesses 28 therein match 105 each other and form a circular recess or socket directly below and in line with the usual center opening in the center-bearing 18. The filler parts 17 are riveted together and to the side-plates.

The bolster as a whole is composed of but few parts 110

easily manufactured and securely riveted together and possesses a design and structure adapting it to meet all of the conditions which may be imposed upon it in service of the roughest kind. The vertical steel plate-sides of the bolster by extending vertically below the bottom member 13 to which they are riveted very materially increase the resisting power of the bolster as a whole and especially at those points at which steel plate bolsters are most likely to break down, and I recommend that the downwardly extending portions 20 of said plate-sides commence at points inwardly of the vertical planes of the side-bearings and continue substantially or entirely to the outer ends of said bottom member. The extensions 20 of the plate-sides not only add to the efficiency of the bolster but may be used to house between them the upper portions of the bolster-supporting springs.

What I claim as my invention and desire to secure by Letters-Patent, is:

- 20 1. A bolster comprising a top, steel plate sides and a bottom member riveted thereto and defining a bolster deepest at its middle and having horizontal end portions, said plate sides being extended vertically below said bottom member along the adjacent upwardly extending and horizontal end portions of the same; substantially as set forth.
- 25 2. A bolster comprising a top, steel plate sides and a bottom member riveted thereto and defining a bolster deepest at its middle and having horizontal end portions, said plate sides being extended vertically below said bottom member commencing at points inwardly of the vertical planes of the side-bearings and continuing to substantially the outer ends of said member; substantially as set forth.
- 30 3. A bolster comprising a top-plate, steel plate sides whose upper edge portions are flanged outwardly and riveted to said top-plate, and a bottom member between and riveted to said sides and defining a bolster deepest at its middle and having horizontal end portions, said plate sides being extended vertically below said bottom member along the adjacent upwardly extending and horizontal end portions of the same; substantially as set forth.
- 35 4. A bolster comprising a top-plate, steel plate sides whose upper edge portions are flanged outwardly and riveted to said top-plate, and a bottom member between and riveted to said sides and defining a bolster deepest at its middle and having horizontal end portions, said plate sides being extended vertically below said bottom member commencing at points inwardly of the vertical planes of the side-bearings and continuing to substantially the outer ends of said member; substantially as set forth.
- 40 5. A bolster comprising a top-plate, steel plate sides whose upper edge portions are flanged outwardly and riveted to said top-plate, and a channel beam bottom member having its edge flanges extended upwardly between and riveted to said plate sides, said channel defining a bolster deepest at its middle and having horizontal end portions, and said plate sides being extended vertically below said channel beam along its adjacent upwardly extending and horizontal end portions; substantially as set forth.
- 45 6. A bolster comprising a top-plate, steel plate sides whose upper edge portions are flanged outwardly and riveted to said top-plate, and a channel beam bottom member having its edge flanges extended upwardly between and riveted to said plate sides, said channel defining a bolster deepest at its middle and having horizontal end portions, and said plate sides being extended vertically below said channel beam commencing at points inwardly of the vertical planes of the side-bearings and continuing to substantially the outer ends of said beam; substantially as set forth.
- 50 7. A bolster comprising a top, steel plate sides, a bottom member riveted thereto and defining a bolster deepest at its middle and having horizontal end portions, and pressed up steel plate braces within said end portions, said braces each comprising a vertical transverse member having integral top, bottom and side edge flanges and said side flanges being riveted to said plate sides; substantially as set forth.
- 55 8. A bolster comprising a top, steel plate sides, a bottom member riveted thereto and defining a bolster deepest at its middle and having horizontal end portions, and pressed up steel plate braces within said end portions, said braces each comprising a vertical transverse member having integral top, bottom and side edge flanges and disposed with their vertical members facing each other and separated by a space about equal to that between the column guides, and said side flanges of said braces being riveted to said plate sides; substantially as set forth.
- 60 9. A bolster comprising a top, steel plate sides, a bottom member riveted thereto and defining a bolster deepest at its middle and having horizontal end portions, and a pressed up steel plate center filler consisting of two matched corresponding parts each comprising a vertical transverse member having a vertical recess and top, bottom and side outwardly extending edge flanges, said parts being riveted together at their transverse members and to said plate sides at their side flanges; substantially as set forth.

Signed at New York city, in the county of New York, and State of New York, this 30th day of April A. D. 1907.

JOHN MCE. AMES.

Witnesses:

CHAS. C. GILL,
ARTHUR MARION.