

G. A. JOHNSON.
 DRAW BAR AND DRAFT YOKE CONNECTION.
 APPLICATION FILED SEPT. 23, 1910.

1,052,589.

Patented Feb. 11, 1913.

2 SHEETS—SHEET 1.

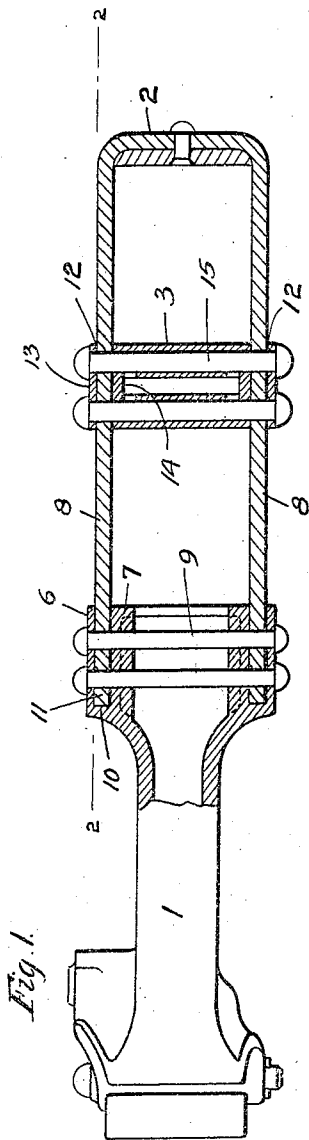


Fig. 1.

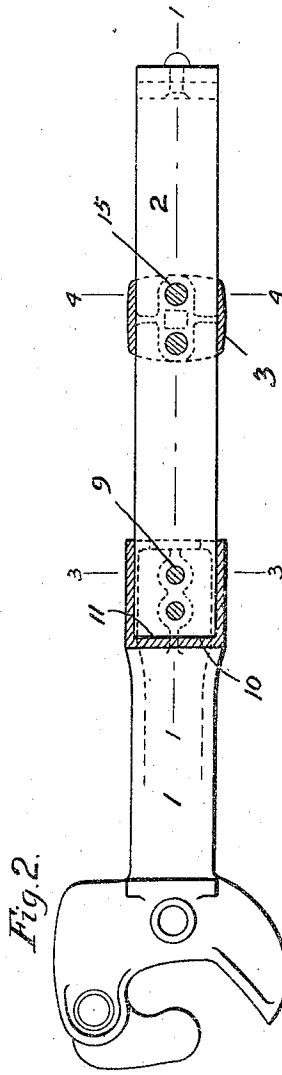


Fig. 2.

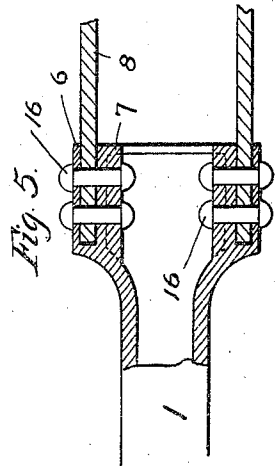


Fig. 5.

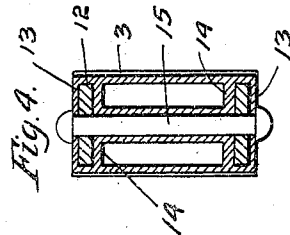


Fig. 4.

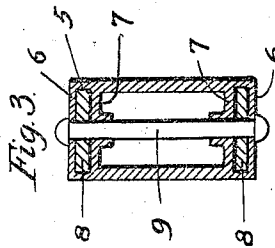


Fig. 3.

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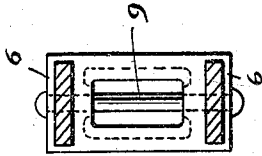


Fig. 7.

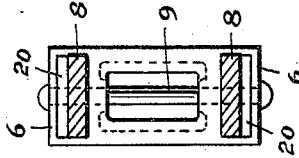


Fig. 9.

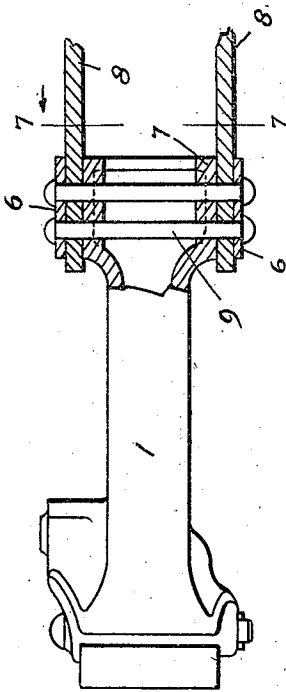


Fig. 6.

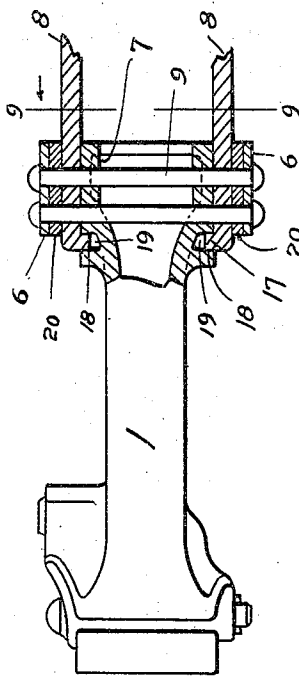


Fig. 8.

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UNITED STATES PATENT OFFICE.

GEORGE A. JOHNSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO WILLIAM H. MINER, OF CHICAGO, ILLINOIS.

DRAW-BAR AND DRAFT-YOKE CONNECTION.

1,052,589.

Specification of Letters Patent.

Patented Feb. 11, 1913.

Application filed September 23, 1910. Serial No. 583,352.

To all whom it may concern:

Be it known that I, GEORGE A. JOHNSON, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Draw-Bar and Draft-Yoke Connections, of which the following is a specification.

My invention relates to improvements in draft rigging for railway cars, and more particularly to draw bar and draft yoke connections.

The object of my invention is to provide a draw-bar and yoke connection of simple and efficient construction, in which the connecting rivets will have a double shear action instead of a single shear action, as in the customary constructions heretofore generally in use. To practically accomplish this object or result, and herein my invention consists, I provide the draw-bar with upper and lower webs or faces between which each limb or member of the draft yoke is embraced, and through which the connecting rivets extend so that the connecting rivets will have to be sheared in four places, or at both the upper and lower faces of each limb of the draft yoke before the draft yoke can be separated from the draw-bar, thus very materially increasing the effective strength of the rivets and the connection as a whole.

My invention further consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described and more particularly set forth in the claims.

In the accompanying drawing forming a part of this specification, Figure 1 is a side elevation, partly in central, vertical, longitudinal section, of a draw-bar and draft yoke connection embodying my invention. Fig. 2 is a plan view, partly in horizontal section on line 2—2 of Fig. 1. Figs. 3 and 4 are cross sections on lines 3—3 and 4—4 respectively of Fig. 2. Fig. 5 is a detail, longitudinal, sectional view, showing a modification in which two short rivets are employed in place of each long rivet. Fig. 6 is a similar sectional view showing another modification in which the abutment shoulders on the draw bar for the ends of the draft yoke members to engage are omitted.

Fig. 7 is a cross section on line 7—7 of Fig. 6. Fig. 8 is a longitudinal sectional view, showing another modification in which the ends of the draft yoke have gibs to engage cooperating abutment shoulders on the draw-bar, and in which filler plates are employed above the upper and below the lower limb of the draft yoke, and Fig. 9 is a cross-section on line 9—9 of Fig. 8. In the modifications shown in Figs. 5 to 9 inclusive on the drawing, the rear portion of the yoke including the thimble has been omitted in order to prevent crowding of the drawing.

In the drawing, 1 represents a coupler draw bar and 2 a draft yoke of a railway car draft rigging, and 3 a thimble or filler block between the upper and lower limbs of the draft yoke. The draw bar 1 is furnished at its rear end with a pair of slots or sockets 5 to receive the ends of the upper and lower limbs of the draft yoke, thus forming an outer web 6 and inner web or face 7 between which each limb 8 of the draft yoke is embraced and through which the connecting rivets 9 extend, so that the rivets will have a double shear action for each limb of the draft yoke. Or, so that, in other words, the rivet will require to be sheared both at the upper and lower faces of each limb of the draft yoke before the draft yoke can separate from the draw bar. The draw-bar is preferably also furnished with abutment shoulders 10 for the extreme ends 11 of the draft yoke limbs to abut against.

The thimble or filler block 3 which fits between the two intermediate followers in a tandem spring draft rigging is furnished with sockets or slots 12 for the upper and lower limbs of the draft yoke to pass through, thus forming an outer web 13 and an inner web or face 14 between which each limb of the draft yoke is embraced and through which the thimble connecting rivets 15 pass; thus giving these rivets also a double shear action and much greater effective strength than in the constructions heretofore in use.

In the modification shown in Fig. 5, two short rivets 16 are substituted for each of the long rivets 9, thus further increasing the clamping action of the rivets in draw-

ing snugly together the webs or faces 6 and 7 of the cast steel or malleable iron draw-bar between which each limb of the draft yoke is embraced.

5 In the modification shown in Figs. 6 and 7, the abutment shoulders 10 are omitted, the horizontal slots 5 extending through the enlarged rear end of the draw-bar, so that the ends of the draft yoke limbs may project through such slots if desired. This construction enables the outer webs 6 to be more readily drawn snugly against the draft yoke limbs by the connecting rivets 9.

10 In the modification shown in Figs. 8 and 15 9, the draft yoke limbs are furnished with gibs or flanges 17 to engage the shoulders 18 of the draw-bar and the horizontal slots 19 in the draw-bar are enlarged to accommodate said gibs or flanges 17; and removable filler plates 20 are employed through which the connecting rivets pass to cause the necessary snug fit and clamping action of

the webs or faces 6, 7 of the draw-bar on or against the limbs of the draft yoke.

I claim:—

1. The combination with a draft yoke, of a connecting thimble having slots for the limbs of the draft yoke to pass through, substantially as specified. 25

2. The combination with a draft-yoke, of 30 a draw-bar having enlarged longitudinal slots at its rear end to receive the limbs of the draft-yoke, and connecting rivets extending through the inner and outer walls of said slots and through the draft yoke 35 limbs, said draft yoke limbs having flanges at their extreme ends, said slots being employed to accommodate said flanges, and removable filler plates fitting in said enlarged slots, substantially as specified.

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Witnesses:

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