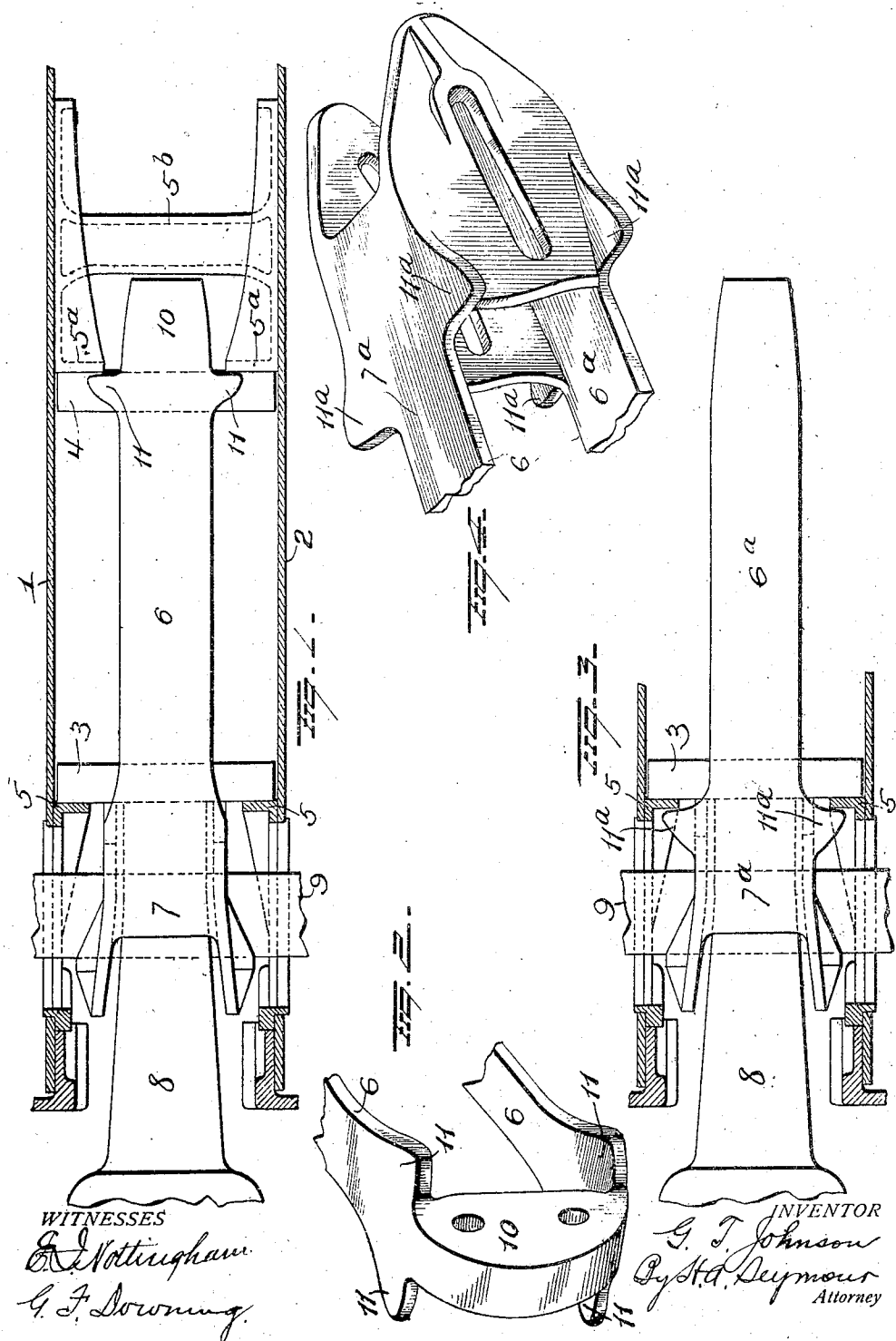


G. T. JOHNSON.
DRAFT GEAR FOR CARS.
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DRAFT-GEAR FOR CARS.

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To all whom it may concern:

Be it known that I, GEORGE T. JOHNSON, of Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Draft-Gears for 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 an improvement in draft gears for cars, the object being to improve the means for transmitting the buffing and pulling stresses to the draft sills of the car, and it consists in the details of construction and combinations of parts as will be more fully explained and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in top plan, partly in section, showing my improvement applied to the center or draft sills of a car; Fig. 2 is a view in perspective of the rear end of the yoke; Fig. 3 is a view similar to Fig. 1 of a modified construction and Fig. 4 is a view in perspective of the front end of the yoke shown in Fig. 2.

1 and 2 represent the center or draft sills of the car. The shock absorbing means may be of any preferred construction either of the friction type or springs, and they are located between the followers 3 and 4. These followers 3 and 4, form end abutments for the shock absorbing means and are limited as to movement in the direction of the draft and buffing strains by the cheek castings 5 and 5^a. The cheek castings 5 form abutments for the front follower 3 and transmit the pulling stresses to the draft sills, while the rear cheek castings 5^a, form abutments for the rear follower 4, and transmit the buffing stresses to the side sills. The rear castings 5^a are preferably connected by an integral member 5^b, located in rear of, but in the horizontal plane of movement of the draft yoke 6. This yoke is formed in a single integral casting composed of parallel top and bottom members, a rear member having a straight flat front face and a curved rear face, and a hood 7 at its front end. This hood is substantially the same shape in cross section as the butt end of a car coupler 8, to receive the latter, but is of slightly greater sectional area than the butt of the coupler

so as to permit of some movement of the coupler in the yoke. This yoke straddles both followers 3 and 4 as shown in Fig. 1 and the shock absorbing means rests within the yoke, with its ends bearing against the adjacent faces of the followers, and normally holds the latter in contact with their respective cheek castings 5 and 5^a.

The rear end of the draw or coupler bar rests within the hood 7 at the front end of the yoke, and the side members of the hood 7 of the yoke, are provided with longitudinal slots for the passage of the key 9. The butt or rear end of the draft or coupler bar is loosely mounted in the hood of the yoke, and is provided with a transverse slot for the passage of the key 9, which, as previously explained also passes through the slots in the side members of the hood. The key 9 fits snugly within the slot in the draft or coupler bar, but is of less width than the length of the slots in the side wings of the hood, so as to permit the coupler bar to have a longitudinal movement rearwardly within the hood and independent of the yoke.

The rear follower is in advance of the rear end 10 of the yoke with its ends bearing against the cheek castings 5^a. The front follower 3, passes through the yoke at the rear of the hood with its ends bearing against the cheek castings 5 and in position to be engaged by the rear end of the coupler bar.

The yoke is provided adjacent its rear end with two pairs of integral laterally projecting shoulders 11 which latter overhang the cheek castings 5^a, and the extreme rear end of the yoke rests but slightly in advance of the member 5^b connecting the cheeks 5^a.

In the operation of the parts a pull on the draw bar or coupler is transmitted through the key 9 directly to the yoke 6 and from the latter to the rear follower 4, which will be carried forwardly with the yoke, thus compressing the shock absorbing devices located intermediate the followers. As the front follower 3 bears against the rear of the cheek castings, it is held by the latter against forward movement. In buffing the rear end of the draw bar 8 coming in contact with the front follower forces the same rearwardly thus compressing the shock absorbing means against the rear follower which as before explained is held against rearward movement by the cheek castings

5^a. The draw bar has a longitudinal movement within the hooded end of the yoke a distance equal to the difference between the length of the slots in the side wings of the hood of the yoke and the width of the key 9, so that the buffing strains are transmitted direct to the springs or other shock absorbing means, and not normally through the yoke, the latter remaining at rest, and prevented from rearward movement by the engagement with the shoulders 11 thereon with the cheek castings 5^a, and also by the member 5^b connecting the cheek castings which member, as previously explained rests in the path of movement of the rear end of the yoke.

Instead of forming these shoulders integral with the yoke near the rear end of the latter as shown in Figs. 1 and 2, they may be integral with the top and bottom members 6^a and 7^a of the hood as shown in Figs. 3 and 4. As shown in Fig. 3, these shoulders 11^a are located in advance of the cheek castings 5 and positively prevent a rearward movement of the yoke under buffing stresses.

By locating the shoulders in pairs on the upper and lower members of the yoke, and having these shoulders abut against stops carried by the side sills, any stresses in

buffing that may be transmitted to the yoke will be borne evenly by the upper and lower members of the yoke, and be evenly distributed by the latter to the two side sills.

As shown in Figs. 1 and 3 the key 9 moves freely in elongated slots in the center of draft sills.

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is:—

In a draft gear for cars, the combination of a pair of oppositely disposed abutments, and a yoke comprising top and bottom members, rear end and hooded front end, the yoke being provided adjacent one end with two pairs of oppositely disposed shoulders, one pair projecting laterally from the upper member of the yoke and the other pair projecting laterally from the lower member of said yoke and all of them adapted to engage the said abutments.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

GEORGE T. JOHNSON.

Witnesses:

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