

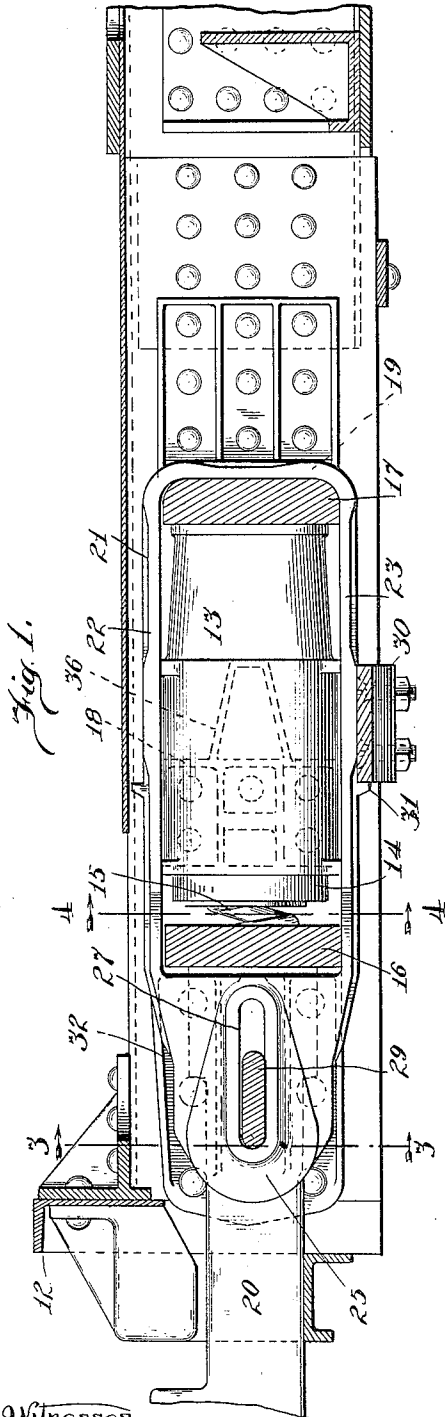
C. J. NASH.
DRAFT GEAR.

APPLICATION FILED OCT. 9, 1911.

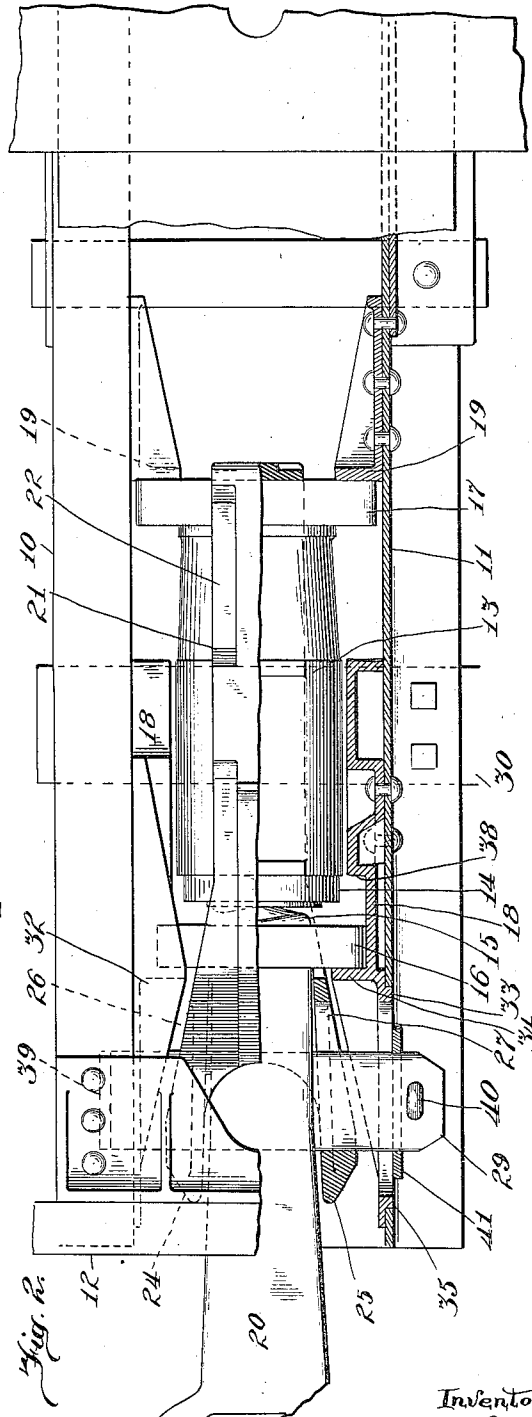
1,050,486.

Patented Jan. 14, 1913.

2 SHEETS-SHEET 1.



Witnesses
Milton Lenoir
E. M. Klatcher



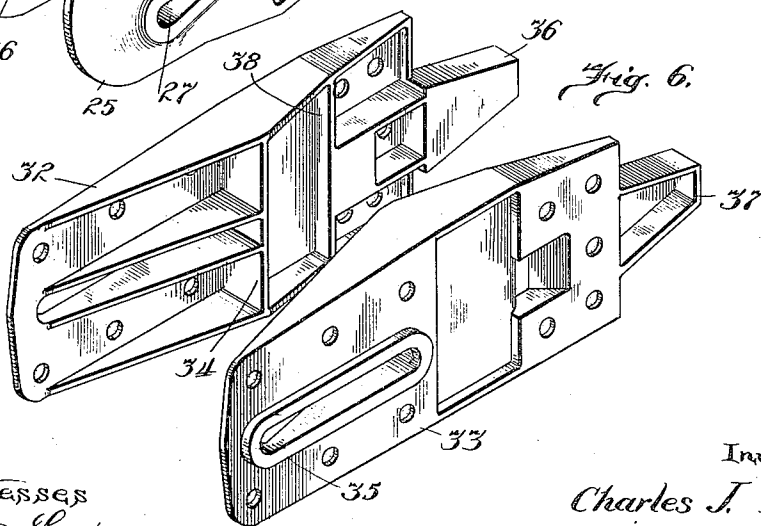
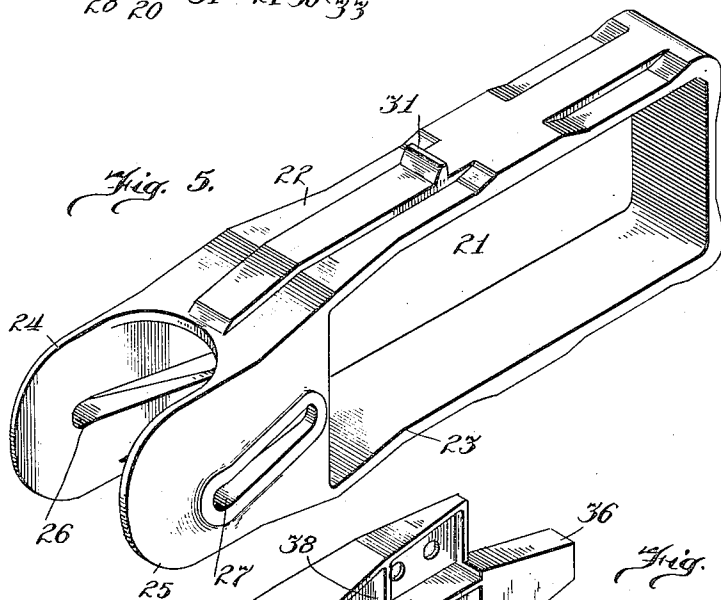
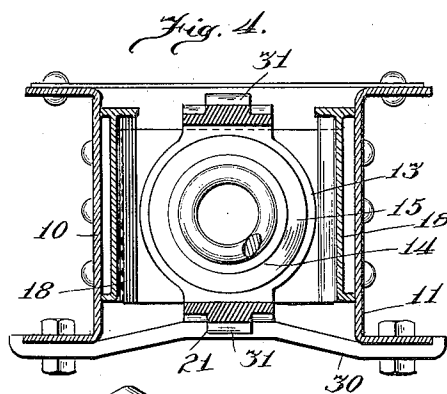
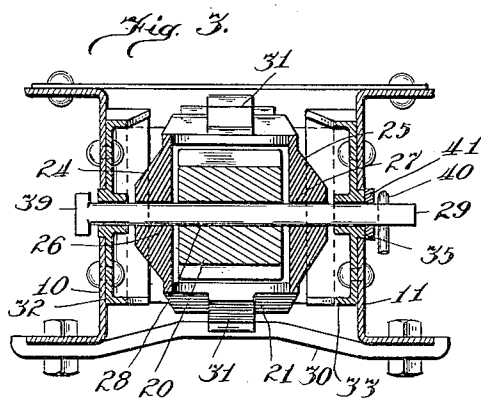
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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES J. NASH, OF CHICAGO, ILLINOIS, ASSIGNOR TO UNIVERSAL DRAFT GEAR ATTACHMENT CO., A CORPORATION OF ILLINOIS.

DRAFT-GEAR.

1,050,486.

Specification of Letters Patent.

Patented Jan. 14, 1913.

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To all whom it may concern:

Be it known that I, CHARLES J. NASH, a citizen of the United States, and resident of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Draft-Gear, of which the following is a specification, and which are illustrated in the accompanying drawings, forming a part thereof.

The invention relates to draft gears for cars; its objects being to improve the form of the yoke, the manner of attaching the same to the coupler bar, and the means for transmitting the buffing and pulling stresses to the draft sills of the car.

The invention is fully hereinafter described, and is illustrated in the accompanying drawings, in which—

Figure 1 is a detail vertical section of a car between the draft sills, the draft gear being shown in elevation; Fig. 2 is a detail plan view of the car, partly in section, showing the center sills and draft gear; Fig. 3 is a sectional view on the line 3—3 of Fig. 1; Fig. 4 is a sectional view on the line 4—4 of Fig. 1; Fig. 5 is an isometric perspective of the yoke used in connection with the gear; and Fig. 6 is a similar view of a pair of cheek plates forming a part of the draft mechanism.

The center or draft sills of a railway car are shown at 10, 11, and its end sill at 12. The shock-absorbing means may be of any preferred construction, there being shown the well known Westinghouse friction draft gear, the shell or cylinder being represented at 13, the projecting ends of the movable friction elements at 14, and the spring at 15. The shock-absorbing device is interposed between a pair of followers 16, 17, which cooperate, respectively, with the forward cheek plates 18 and the rearward buffing lugs 19, which are riveted to the draft sills.

The coupler bar is shown at 20, its inner end bearing directly upon the forward follower 16. A yoke, generally represented by the numeral 21, incloses the two followers and the shock-absorbing elements, and is attached to the inner end of the coupler bar. The yoke comprises the side-arms 22, 23, which are located, respectively, above and below the followers and at their forward ends are united by means of a pair of integral wings 24, 25, which are longitudinally slotted, as shown at 26, 27. The butt of the

coupler bar is received loosely within the throat of the yoke, and is transversely apertured, as shown at 28, to receive a key 29, which also passes through the slots in the wings of the yoke, and preferably through longitudinal slots in the draft sills. The key 29 fits snugly within the aperture in the coupler bar, but is of less width than the length of the slots 26, 27, in the wings of the yoke. The yoke rides upon the usual tie and supporting plate 30, which connects the bottoms of the draft sills 10, 11, and is provided with an integral stop lug 31 for engaging the forward edge of the tie plate. When the gear is in the position of rest, the key 29 is at the forward end of the slots in the yoke wings and the lug 31 is in contact with the tie-plate 30. Each of the cheek plate castings 32, 33, which cooperate with the forward follower 16, is provided with an instanding backwardly-facing shoulder 34 for engagement by the follower, and extends forward beyond the range of movement of the key 29 and is slotted for its accommodation, the slot being surrounded by an outstanding flange 35 which forms a bushing for the slot in the draft sill. These cheek plates extend backwardly and constitute guides for the casing 13 of the shock-absorbing mechanism. As shown, and preferably the rearward ends 36, 37, of the cheek plates are narrower than their body portions. Forward of the guiding portions of the cheek plates each is provided with a forwardly facing shoulder 38, which limits the inward movement of the follower 16 before it reaches the forward end of the casing 13.

The key 29 is provided at one end with a head, as shown at 39, and at its opposite end is apertured to receive a cotter pin 40, a washer 41 being placed upon the key between the cotter and the sill. Normally the key 29 is located midway of the ends of the slots in the cheek plates. Under pulling stresses the coupler bar moves forward, carrying with it the yoke, the follower 17, and the casing 13, the key 29 moving freely within the slots in the cheek plates. Under buffing stresses the follower 16 is moved inwardly, its range of travel being limited by the stops 38. The yoke remains at rest, its inward movement being prevented by the engagement of the lug 31 with the plate 30, and the key 29 being free to travel in the slots in its wings. There is no relative

movement between the casing 13 and the yoke, as they travel together in pulling and are both at rest in buffing. The objectionable wearing of the parts by the chafing of the yoke upon the casing is thus entirely
5 eliminated. As shown, the yoke is provided with lugs 31 on both of its arms and, being symmetrical, it may be inserted either side up. The flange 35 forms an abutment for
10 transmitting the pressure to the sills, thus relieving the strain upon the rivets which secure the cheek plates thereto and preventing them from being sheared off. This flange also provides a wide bearing for the
15 key 29, and thus reduces wear by distributing the friction.

I claim as my invention—

In a draft gear, in combination, shock-absorbing means, followers at each end

thereof, a loop-shaped yoke inclosing the 20 followers and having the forward ends of its arms united by wings, such wings being longitudinally slotted, a transversely apertured coupler bar loosely entering the forward end of the yoke and bearing against 25 the forward follower, a key passing through the slots in the yoke wings and the aperture in the coupler bar, such key being of less width than the length of the wing slots and snugly fitting the coupler bar aperture, a 30 fixed support for the yoke, and a lug on the yoke engageable with the forward edge of the supporting plate.

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