No. 668,655. Patented Feb. 26, 1901.

W. H. MINER.

DRAFT RIGGING FOR RAILWAY CARS.

(Application filed Feb. 24, 1900.)

(No Model.) 2 Sheets—Sheet 1.

FIG. 1.

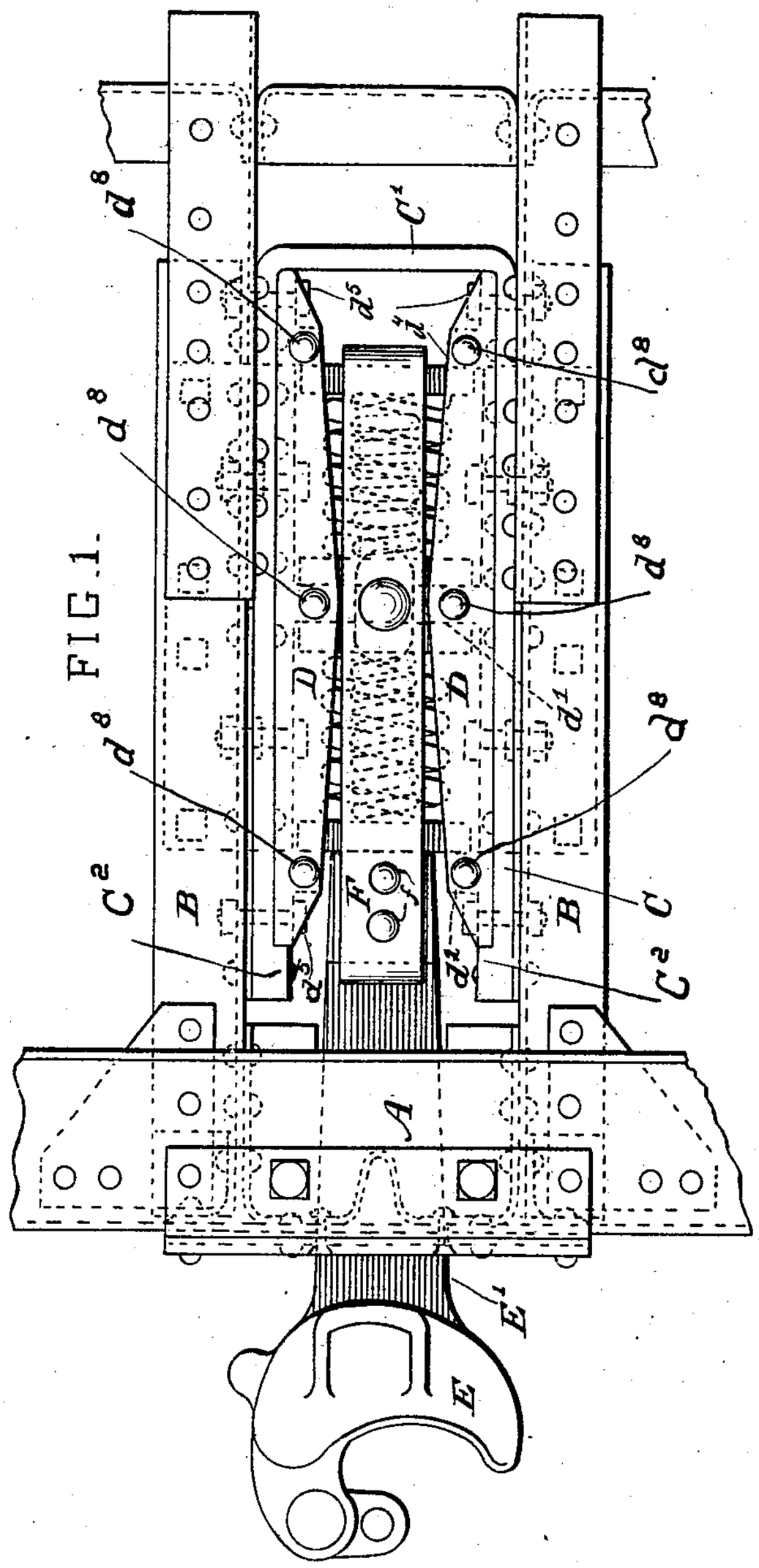

FIG. 2.

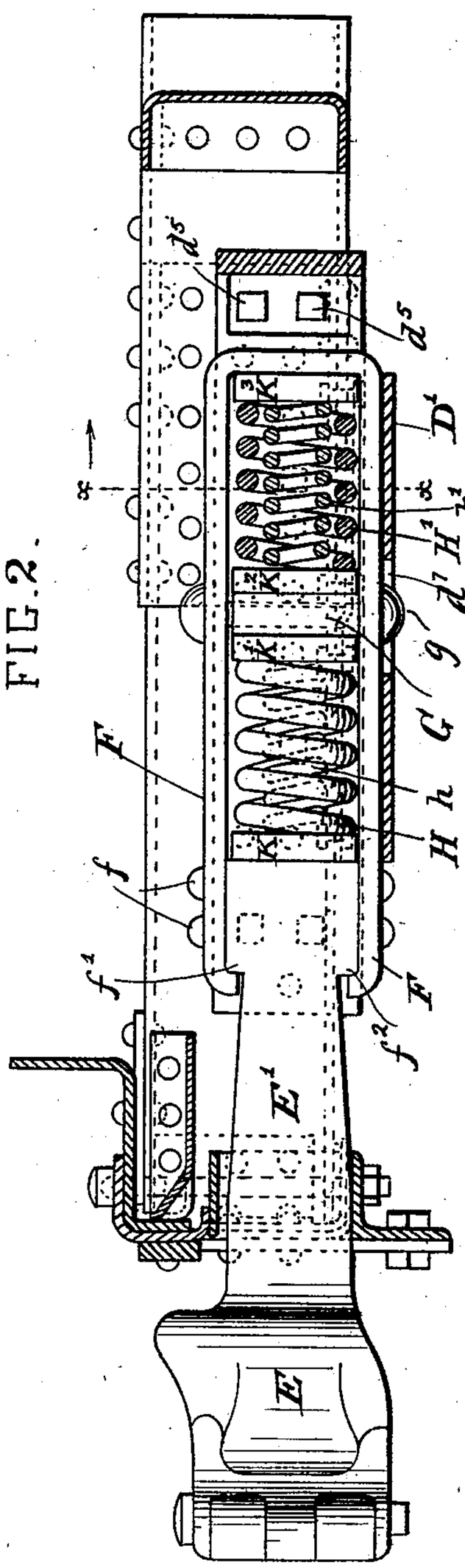

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FIG. 5.

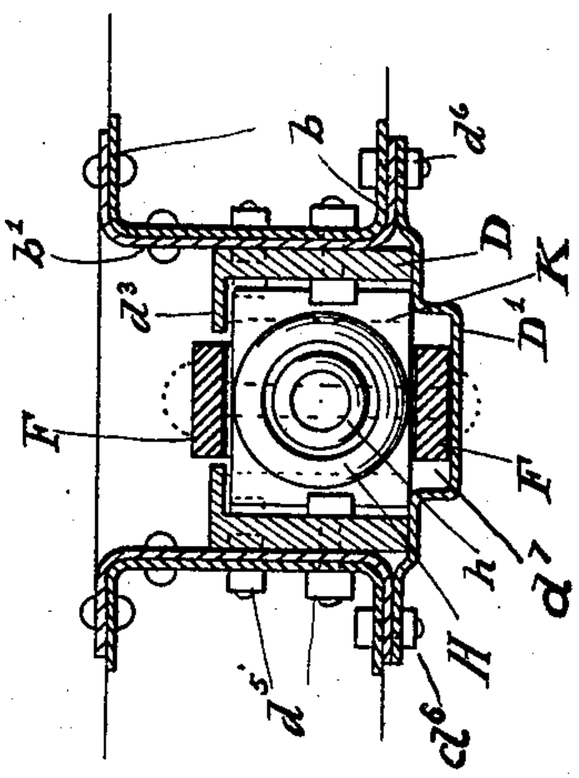


FIG. 6.

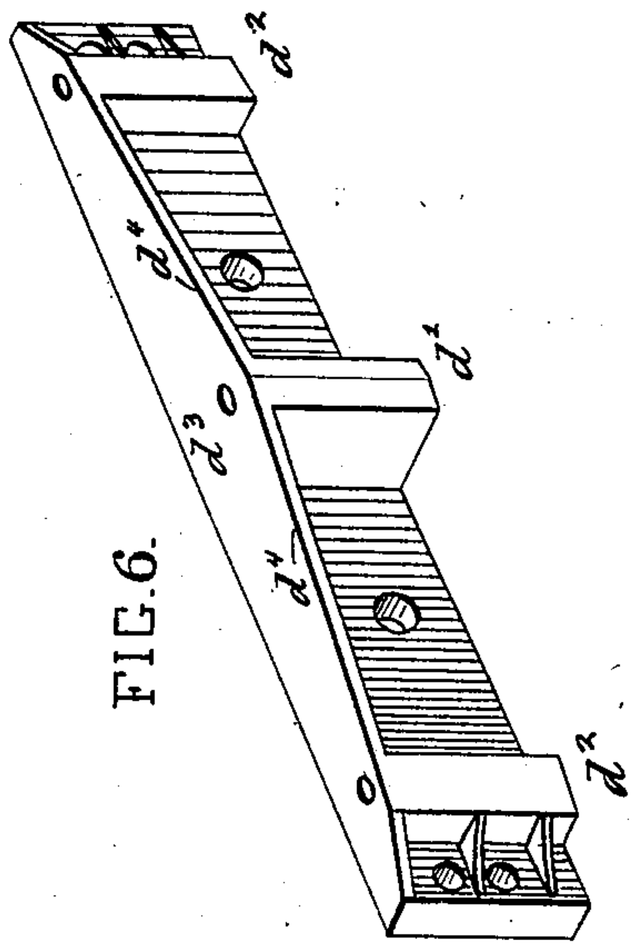


FIG. 3.

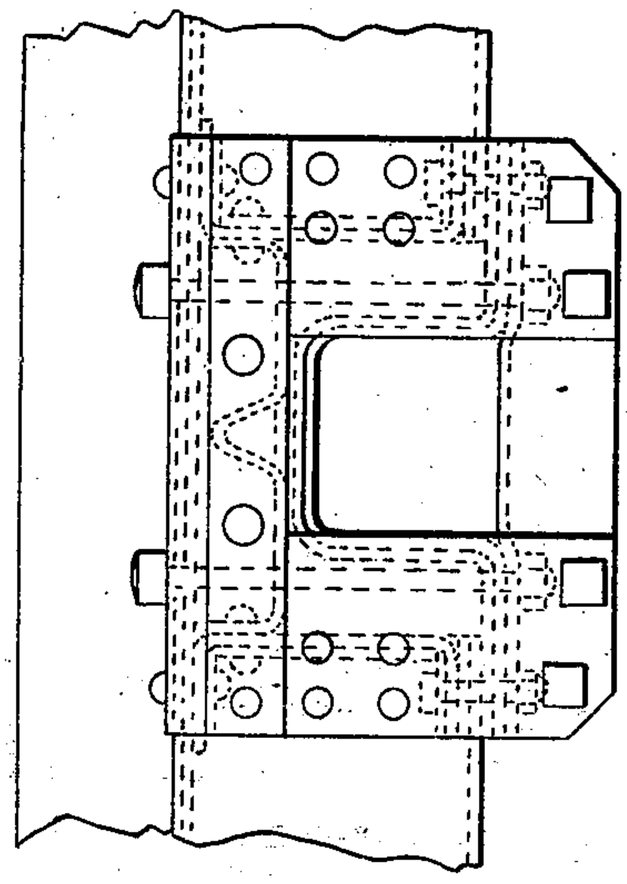
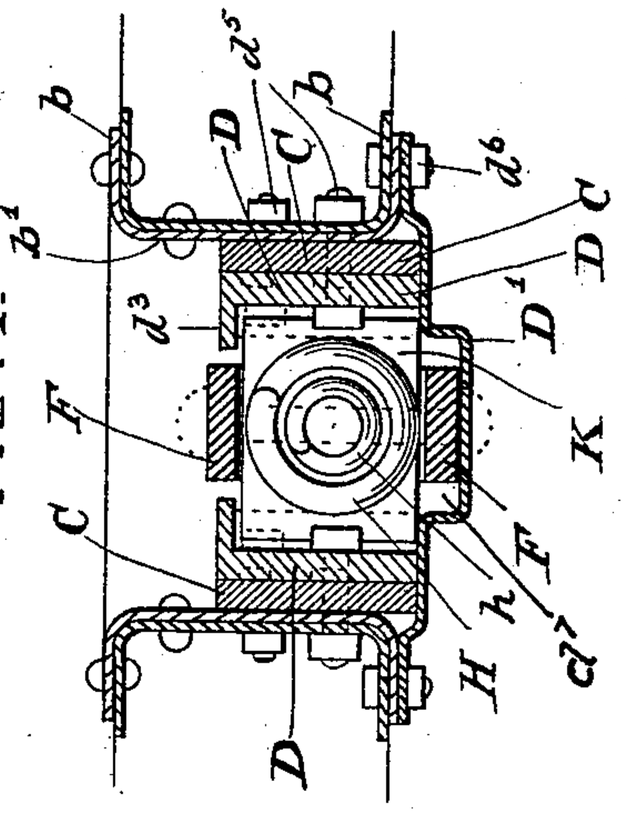


FIG. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM H. MINER, OF CHICAGO, ILLINOIS.

DRAFT-RIGGING FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 668,655, dated February 26, 1901.

Application filed February 24, 1900. Serial No. 6,358. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. MINER, 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 Tandem-Spring Draft-Rigging for Railway-Cars, of which the following is a specification.

My invention relates to improvements in tandem-spring draft-rigging for railway-cars.

My invention consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described, and specified in the claims.

In the accompanying drawings, Figure 1 is a plan view of a draft-rigging embodying my invention. Fig. 2 is a central longitudinal section, partly in elevation. Fig. 3 is a front view, the draw-bar and coupler being removed. Fig. 4 is a cross-section on line $x\ x$ of Fig. 2. Fig. 5 is a cross-section similar to Fig. 4, showing a slight modification in construction; and Fig. 6 is a detail perspective view of one of the stop-castings.

In the drawings similar letters of reference indicate like parts throughout all the figures.

In said drawings, A represents the steel-beam end sill of a steel car-frame, and B B steel draw-beams, the same being preferably channel-beams, with their flanges b turned outward, thus leaving the steel draw-beams with plain or smooth inner faces b'.

C is a metal yoke having its two sides securely riveted to the steel channel draw-beams B.

D D are the draw-bar stop-castings, each furnished with end stops $d^2\ d^2$ and a deeper middle stop d' and an upper integral follower guide or flange d^3, having tapering edges $d^4\ d^4$ extending from the middle stop to the two end stops. These stop-castings abut at their rear ends against the cross-bar C′ of the yoke C and are secured by bolts d^5 to the steel channel draw-beams, the bolts extending through the yoke C, as well as the draw-beams and stop-castings.

E is the coupler, E′ the draw-bar, and F the draw-bar extension or pocket-strap secured rigidly to the draw-bar by the bolts f and interlocking shoulders $f'\ f^2$ on the draw-bar and pocket-strap.

G is the abutment-block, rigidly secured to the pocket-strap by the bolt or rivet g.

H h H′ h' are tandem-arranged springs, and K K′ K² K³ are the followers.

D′ is a steel plate which serves as the lower guide for the followers, the same being secured at its opposite edges to the steel draw-beams by bolts d^6, which extend through the lower flanges b of the steel channel draw-beams B B. This guide-plate D′ serves to rigidly tie together and brace the two steel draw-beams and also as a guide for the followers and also as a support for the draft-rigging as a whole. It is furnished with a central longitudinal channel d^7 for the lower member of the pocket-strap. Owing to the inclined inner edges d^4 of the guide-flange d^3 of the stop-casting and the greater depth of the middle stop d' over that of the end stops d^2 a fulcrum is formed at the angle of said inclined edges for the draw-bar pocket-strap to swing or turn upon, as required when the train is passing around curves. Bolts d^8 may also preferably extend through the bottom plate D′ and the stops of the stop-castings. The yoke C also, preferably, is furnished with gibs or shoulders C² for the front ends of the stop-castings to abut against.

I claim—

1. In a tandem-spring draft-rigging, the combination with a pair of flanged steel draft-beams, of a yoke C secured thereto, a pair of stop-castings D D secured within said yoke and furnished each with three integral stops, and an upper guide or flange tapering from the middle toward each end, the middle stop being deeper than the end stops, two tandem-arranged springs, followers at the ends of said springs and abutting against said stops, a draw-bar and pocket-strap, and a lower guide-plate D′ removably secured by bolts extending through the lower flanges of said steel draft-beams and provided with a central longitudinal channel for the lower member of the pocket-strap, substantially as specified.

2. The combination with the draw-bar, pocket-strap, tandem-arranged springs and followers, of a pair of flanged steel draft-beams, a pair of stop-castings secured thereto, and fitting between the inner faces thereof, bolts passing horizontally through said

stop-castings and said beams, each of said stop-castings being furnished with three stops and upper guide-flange extending between said stops, a lower guide-plate extending from the front to the rear follower for the followers and the draft-rigging to rest upon and extending between said draft-beams and secured thereto by bolts passing through the lower flanges thereof, substantially as specified.

3. The combination with the draw-bar, pocket-strap, tandem-arranged springs and followers, of a pair of flanged steel draft-beams, a pair of stop-castings secured thereto, and fitting between the inner faces thereof, bolts passing horizontally through said stop-castings and said beams, each of said stop-castings being furnished with three stops and upper guide-flange extending between said stops, a lower guide-plate extending from the front to the rear follower for the followers and the draft-rigging to rest upon and extending between said draft-beams and secured thereto by bolts passing through the lower flanges thereof, said guide-plate having a central longitudinal channel for the lower member of the pocket-strap, substantially as specified.

4. The combination with the draw-bar, pocket-strap, tandem-arranged springs and followers, of a pair of flanged steel draft-beams, a pair of stop-castings secured thereto, and each furnished with three stops and upper guide-flange, a lower guide-plate for the followers and the draft-rigging to rest upon extending between said draft-beams and secured thereto by bolts passing through the lower flanges thereof, the upper guide-flanges of said stop-castings each tapering from the middle toward both ends to form a fulcrum for the pocket-strap to swing upon, substantially as specified.

5. The combination with the draw-bar, pocket-strap, tandem-arranged springs and followers, of a pair of flanged steel draft-beams, a pair of stop-castings secured thereto, and each furnished with three stops and an upper guide-flange, a lower guide-plate for the followers and the draft-rigging to rest upon extending between said draft-beams and secured thereto by bolts passing through the lower flanges thereof, said guide-plate having a central longitudinal channel for the lower member of the pocket-strap, the upper guide-flange of said stop-castings each tapering from the middle toward both ends to form a fulcrum for the pocket-strap to swing upon, substantially as specified.

6. The combination with the draw-bar, tendem-arranged springs and followers, of a pair of draft-beams, a yoke C secured thereto and having cross-bar C′, a pair of stop-castings D D secured within said yoke and furnished each with three stops for the followers to abut against, the rear ends of said stop-castings abutting against said cross-bar C′ of said yoke, substantially as specified.

7. The combination with the draw-bar, tandem-arranged springs and followers, of a pair of draft-beams, a yoke C secured thereto, a pair of stop-castings D D secured within said yoke and furnished each with three stops for the followers to abut against, said yoke having gibs or shoulders at its front ends for the front ends of the stop-castings to abut against, and bolts extending horizontally through said draft-beams, yoke and stop-castings, substantially as specified.

8. The combination with the draw-bar, tandem-arranged springs and followers, of a pair of steel draft-beams, a bar C secured thereto, a pair of stop-castings fitting against said bar C and abutting at their front and rear ends against shoulders or abutments with which said bar is provided, said stop-castings being each furnished with three stops and an upper guide-flange, and bolts passing horizontally through said draft-beams, bar C and stop-castings, substantially as specified.

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