

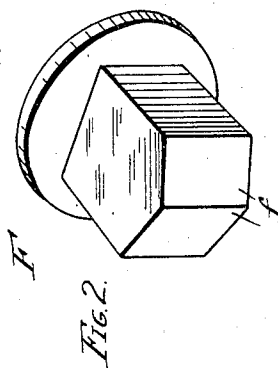
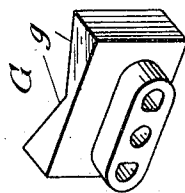
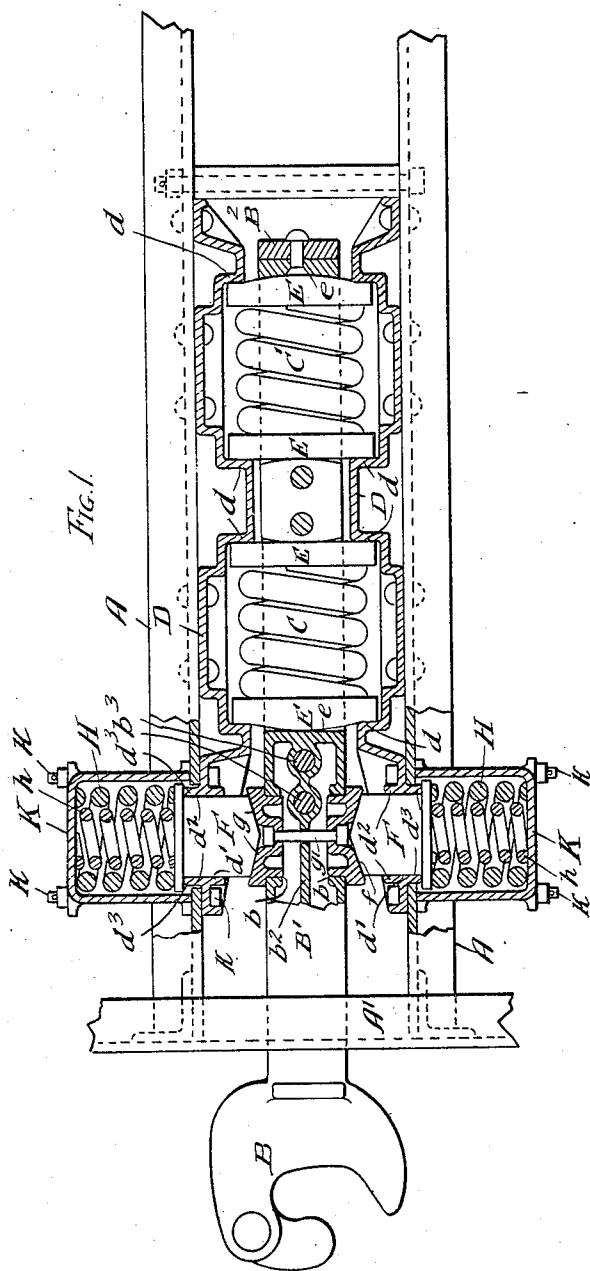
No. 838,560.

PATENTED DEC. 18, 1906.

W. H. MINER.

DRAFT RIGGING FOR RAILWAY CARS.

APPLICATION FILED JULY 12, 1906.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM H. MINER, OF CHICAGO, ILLINOIS, ASSIGNOR TO W. H. MINER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## DRAFT-RIGGING FOR RAILWAY-CARS.

No. 838,560.

Specification of Letters Patent.

Patented Dec. 18, 1906.

Application filed July 12, 1906. Serial No. 325,805.

*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 Draft-Rigging for Railway-Cars, of which the following is a specification.

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

The object of my invention is to provide a draft-rigging of a strong, simple, efficient, and durable construction, which will operate to center the draw-bar and in which the devices for centering the draw-bar will also cooperate to cushion the draw-bar or to retard the expansion of the springs.

My invention consists in the means I employ to practically accomplish this object or result—that is to say, it consists, in connection with the draw-bar, side plates or stop-castings, springs, and followers of any suitable draft-rigging construction, in providing the draw-bar with double-incline friction-shoes, one on each side thereof, and the side plates or stop-castings with sockets or bearings to receive transversely-sliding friction-blocks engaging the friction-shoes on the sides of the draw-bar and with springs operating to press these friction-blocks against the friction-shoes on the draw-bar, so that these transversely-arranged opposing springs will at once center the draw-bar and through the interposed friction blocks or shoes also add materially to the cushioning power of the draft-rigging by the frictional resistance incident to the frictional engagement of the friction-blocks and friction-shoes as the draw-bar moves longitudinally back and forth.

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

In the accompanying drawings, forming a part of this specification, Figure 1 is a plan view, partly in horizontal section, of a draft-rigging for railway-cars embodying my invention. Fig. 2 is a detail perspective view of one of the friction-blocks, and Fig. 3 is a detail perspective view of one of the friction-shoes.

In the drawings, A A represent the center sills or longitudinal frame-pieces of the car,

to which the draft-rigging is secured, and A' the end sill.

B is the coupler; B', the draw-bar; B<sup>2</sup>, the draw-bar strap or yoke; C C', tandem-arranged springs; D, the side plates or stop-castings, and E the followers, the front and rear followers preferably having rounded faces *e* to engage the draw-bar and draw-bar strap, and thus permit the front end of the draw-bar to more freely swing laterally from side to side, as required when the train passes around curves. The side plates or stop-castings D have the customary shoulders or stops *d* for the followers to abut against, and at their front ends the same are provided with horizontally and transversely extending sockets or bearings *d'* to receive the transversely-sliding friction-blocks F, one on each side of the draw-bar. The bearings or sockets *d'* preferably have transversely-extending flanges *d<sup>2</sup>*, integral with the side plates or stop-castings D, to give a bearing of some length to the transversely-sliding friction-blocks F.

G G are friction-shoes on the draw-bar and preferably made in separate pieces and secured in suitable sockets or recesses *b* in the draw-bar, one on each side thereof. These friction-shoes G have double-incline or oppositely-extending friction-faces *g*, which fit and engage corresponding friction-faces *f* on the friction-blocks F. The friction-shoes G are secured in their seats or sockets in the draw-bar by a connecting bolt or rivet *g'*, and the draw-bar B is preferably provided with a central longitudinal rib *b<sup>2</sup>* to increase its strength and afford additional bearing for the rivets *b<sup>3</sup>*, which connect the draw-bar strap B<sup>2</sup> with the draw-bar B'.

H H are coiled springs bearing against the transversely-sliding friction-blocks F and operating to hold the same in close frictional engagement with the friction-shoes G. The springs H bear at their outer ends in a spring-holder K, secured by bolts *k* to the center sills or frame-pieces A of the car, the spring-holders being preferably in the form of closed housings. Smaller springs *h* may, if desired, fit within the springs H.

The side plates or stop-castings D may preferably be furnished with flanges *d<sup>3</sup>*, which fit in the recesses in the longitudinal sills or frame-pieces of the car, to which the side

plates or stop-castings are secured, thus affording an additional anchorage therefor.

In operation the transversely-arranged springs H and blocks F bearing against the shoes G on the draw-bar not only serve to center the draw-bar or restore it to its central position after it has been swung to one side, but also add materially to the cushioning power of the draft-rigging springs C C, owing to the friction resistance between the friction-blocks F and friction-shoes G, as the draw-bar moves back and forth. The transverse springs H, friction-blocks F, and friction-shoes G also serve to retard the movement of the draw-bar due to the expansion of the springs.

I claim—

1. In a draft-rigging, the combination with the draw-bar, side plates or stop-castings, springs and followers, of double-incline friction-shoes secured to the draw-bar, one on each side thereof in advance of said springs and followers, transversely-movable friction-blocks engaging said friction-shoes, and transversely-arranged draw-bar-centering springs bearing against said friction-blocks, substantially as specified.

2. In a draft-rigging, the combination with the draw-bar side plates or stop-castings, springs and followers, of double-incline friction-shoes secured to the draw-bar, one on each side thereof in advance of said springs and followers, transversely-movable friction-blocks engaging said friction-shoes, and transversely-arranged draw-bar-centering springs bearing against said friction-blocks, said side plates or stop-castings being provided with sockets or bearings to receive said transversely-movable friction-blocks, substantially as specified.

3. In a draft-rigging, the combination with the draw-bar side plates or stop-castings, springs and followers, said draw-bar being provided in advance of said springs and followers with reversely-inclined friction-shoes,

transversely-movable friction-blocks engaging said friction-shoes and draw-bar-centering springs bearing against said friction-blocks whereby the draw-bar is centered laterally and its movement cushioned longitudinally, substantially as specified.

4. In a draft-rigging, the combination with the draw-bar, side plates or stop-castings, springs and followers, of reversely-inclined friction-shoes on the draw-bar in advance of said springs and followers, transversely-movable friction-blocks engaging said friction-shoes, transversely-arranged draw-bar-centering springs bearing against said friction-blocks, and holders for said springs, substantially as specified.

5. In a draft-rigging, the combination with the draw-bar, side plates or stop-castings, springs and followers, of reversely-inclined friction-shoes on the draw-bar in advance of said springs and followers, transversely-movable friction-blocks engaging said friction-shoes, transversely-arranged draw-bar-centering springs bearing against said friction-blocks, and holders for said springs, the front and rear followers having rounded faces to engage the draw-bar, substantially as specified.

6. In a draft-rigging, the combination with the draw-bar, side plates or stop-castings, springs and followers, of reversely-inclined friction-shoes on the draw-bar in advance of said springs and followers, transversely-movable friction-blocks engaging said friction-shoes, transversely-arranged draw-bar-centering springs bearing against said friction-blocks, and holders for said springs, said side plates or stop-castings having bearings therein for said friction-blocks, substantially as specified.

WILLIAM H. MINER.

Witnesses:

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