J. R. MITCHELL.

DRAFT RIGGING FOR RAILWAY CARS.

APPLICATION FILED OCT. 12, 1909.

1,120,216.

Patented Dec. 8, 1914.

3 SHEETS-SHEET 1.

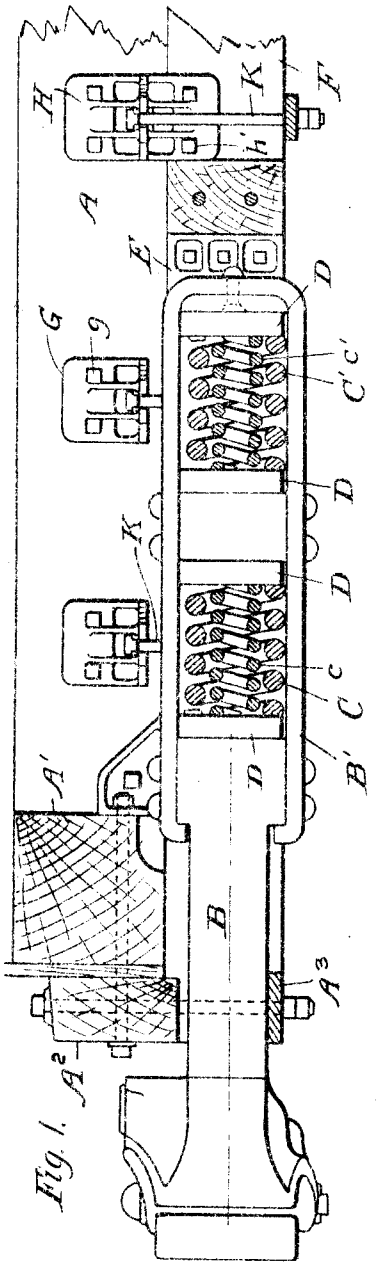


Fig. 1.

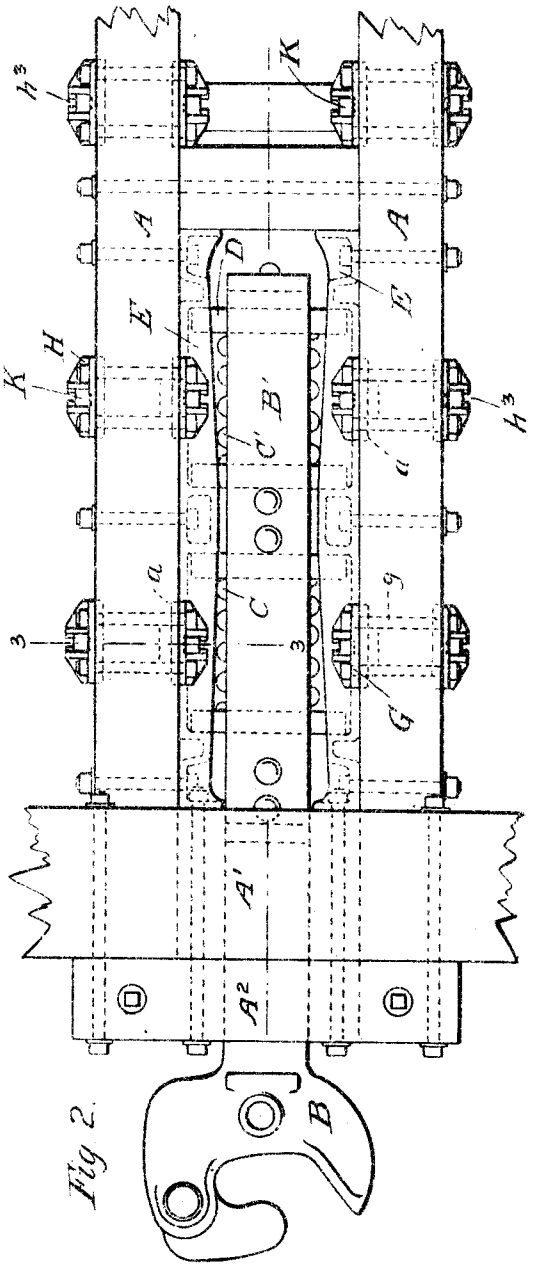


Fig. 2.

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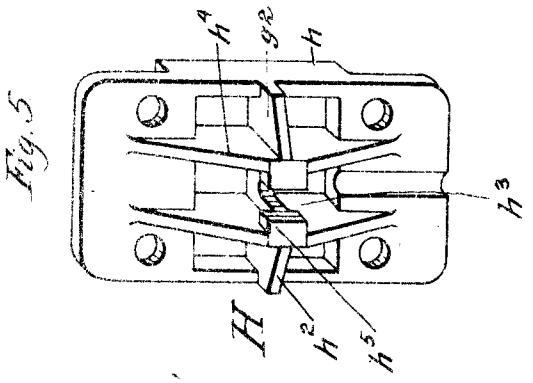
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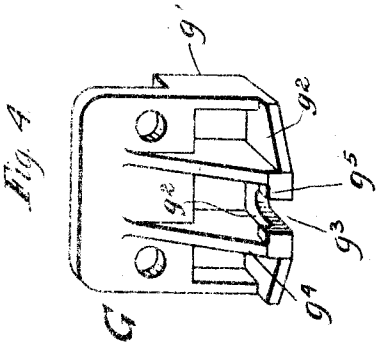
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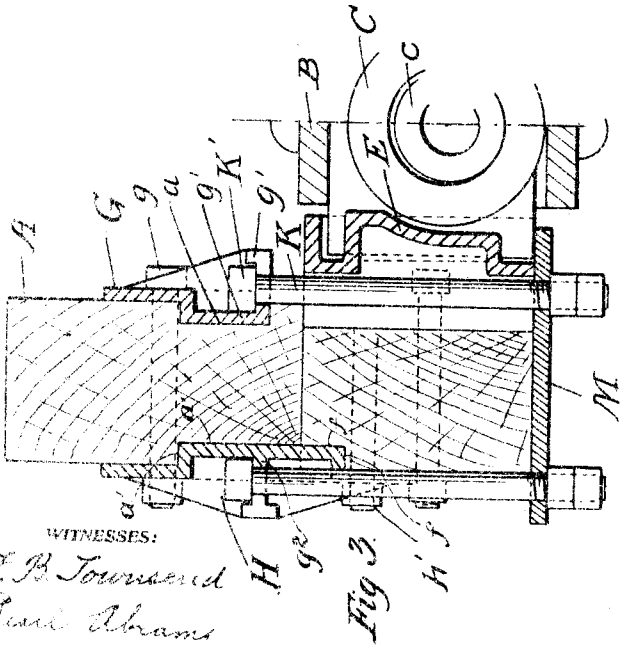
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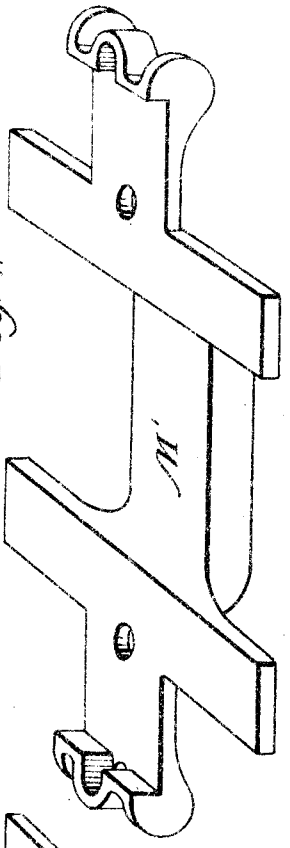
Patented Dec. 8, 1914.

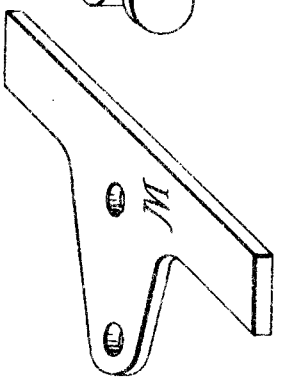
3 SHEETS-SHEET 2.











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3 SHEETS—SHEET 3.

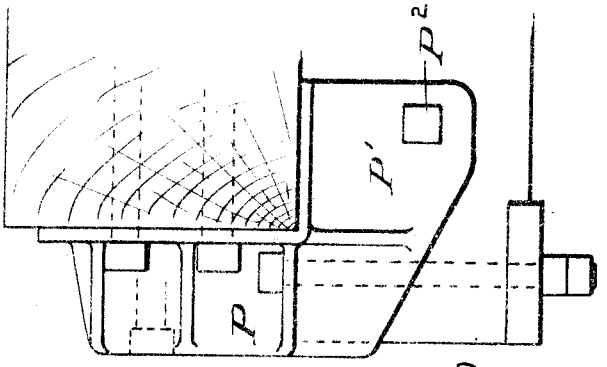


Fig. 10

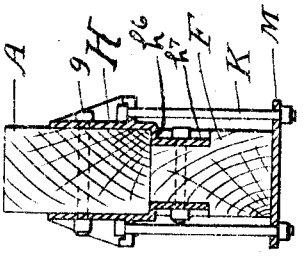


Fig. 12

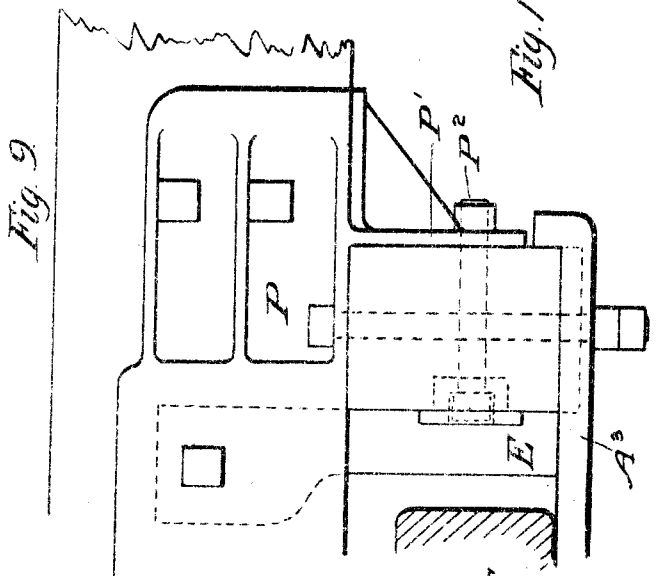


Fig. 9

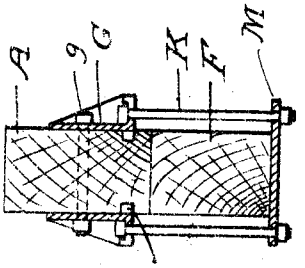


Fig. 11.

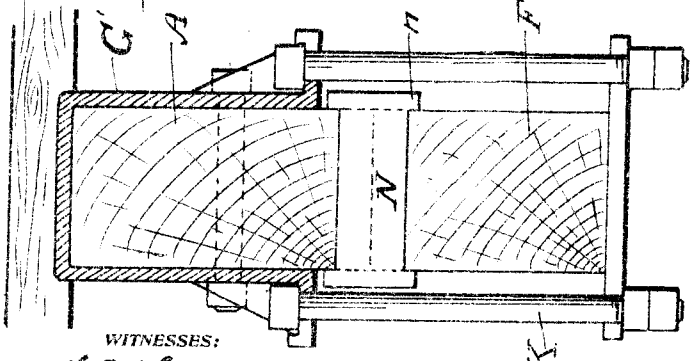


Fig. 8.

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UNITED STATES PATENT OFFICE.

JOHN R. MITCHELL, OF CHICAGO, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO W. H. MINER, OF CHICAGO, ILLINOIS.

DRAFT-RIGGING FOR RAILWAY-CARS.

1,120,216. Specification of Letters Patent. Patented Dec. 8, 1914.

Application filed October 12, 1909. Serial No. 522,334.

To all whom it may concern:

Be it known that I, JOHN R. MITCHELL, 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.

Heretofore the draft sills or timbers to which the draft lugs or stops plates of the draft rigging are directly applied have ordinarily been secured to the center sills of the car by vertical bolts passing up through the draft timbers and center sills, and considerable annoyance, delay and difficulty is practically experienced in cases where it is necessary, by reason of wreck or other cause, to remove and replace a draft timber, as these bolts cannot be removed without unloading the car when loaded with such freight as lumber or grain or the like.

The object of my invention is to provide an improved construction which will obviate this objection or difficulty, and at the same time anchor the draft timbers and the center sills with great strength, firmness and rigidity.

My invention consists in the means I employ to practically accomplish this object or result as herein shown and described and more particularly specified in the claims.

In the accompanying drawing forming a part of this specification, Figure 1 is a side elevation partly in vertical longitudinal section of a draft rigging embodying my invention. Fig. 2 is a plan view. Fig. 3 is a partial cross section on line 3—3 of Fig. 2. Fig. 4 is a detail perspective view of one of the anchor brackets. Fig. 5 is a detail perspective view of another of the anchor brackets. Fig. 6 is a detail perspective view of the combined draft rigging, guide and bottom plate. Fig. 7 is a detail perspective view showing a modification in which the draft rigging bottom guides and bottom plates are made integral with each other so as to serve also as a tie-plate. Fig. 8 is a detail cross section illustrating a modification in which the anchor brackets on both sides of the center sill are made integral with each other, or of a saddle form fitting astride the center sill. Fig. 9 is a detail front elevation showing a modified construction of the buffer. Fig. 10 is a side elevation of the device shown in Fig. 9. Figs. 11 and 12 are cross sectional views showing slightly modified constructions.

In the drawing, A A represent the center sills of a railway car, A^1 the end sill, A^2 the buffer block, A^3 the carry-iron, B the draw-bar, B^1 the draw-bar yoke, C, c, C^1, c^1 springs or cushioning devices of the draft rigging, D the followers and E the draft lugs or stop members of the draft rigging which are secured to the draft sills or timbers F. All these parts are or may be of any suitable construction known to those skilled in the art.

The draft sills or timbers F which fit under the center sills A, instead of being secured thereto by bolts passing up through the draft timbers and center sills, I removably secure to the center sills by anchor brackets G, H, fitting on each side of the center sills and connecting bolts K and bottom plates M which fit below the draft timbers F and through which the connecting bolts K extend.

The anchor brackets G fit on the inside of the center sills A above the draft lug or stop plates E, and are each securely fixed to the center sills by horizontal bolts g which extend through these anchor brackets and the center sills. The anchor brackets G have projections g^1 fitting in suitable gains a' in the inner upright face of the center sills to aid in securing them firmly and rigidly to the center sills. The anchor brackets G are further provided with a projecting shoulder g^2 having slots g^3 and brace webs g^4 and shoulders g^5 to receive the head K^1 of the connecting bolt K.

The anchor brackets H which fit on the outside of the center sills A and on the inside of the center sills at the rear of the draft lug or stop members E are in the nature of double brackets of the same general construction as the anchor bracket G above described. These double anchor brackets H fit against the upright faces of both the center sill A and draft timber F, thus bridging the two and the projection h on the inner face of the bracket H fits in a gain a' f, partially formed in the draft timber F and partially in the center sill A. The double anchor bracket H is secured to the center sill A by horizontal bolts g and to the draft timber F by horizontal bolts h'. The double

anchor bracket H is furnished with a horizontal ledge or shoulder h^2 having slots h^3 to receive the connecting bolt K and upright brace webs h^4 and stop shoulders h^5 to receive the head of the bolt K.

The combined bottom plate and draft rigging guide M fits directly under the draft timber F and has holes therein for the connecting bolts K to pass through, and its inner edge m projects inwardly sufficiently to receive the ends of the followers D and to serve as the lower removable guide to support the draft rigging and for it to reciprocate upon.

In the modification illustrated in Fig. 7, the combined bottom plate and guide on each side of the draft rigging are formed in one integral piece M^1, thus serving also as a tieplate.

In the modification illustrated in Fig. 8, two anchor brackets on each side of the center sill are formed in one integral casting G^1, or in the shape of a saddle fitting astride the center sill A, and in this modified construction a separate keying block or thimble N having flanges n at each end fits in a recess half formed in the center sill A and half in the draft timber F.

In the modification illustrated in Figs. 9 and 10, the buffer block P is made of cast metal and furnished with an arm or web P^1 which fits under the end sill and is secured to the front end of the draft timber by a bolt P^2, thus additionally anchoring the draft timber in position.

In the modified construction shown in Fig. 11, the anchor brackets G are furnished on their inner faces with lugs or projections g^6 which fit in corresponding gains or notches in the center sill A to aid in holding it in position on the center sill.

In the modified construction shown in Fig. 12, the anchor brackets H have shoulders h^6 which fit under the center sill A and the inset portions h^7 of the bracket H fit in notches or suitable recesses formed in the draft sills F.

I claim:—

1. In a draft rigging, the combination with center sills, of draft sills fitting beneath the center sills, anchor brackets on the inner and outer sides of each center sill, said brackets having portions thereof seated in gains in the sides of the center sills, bolts extending through the brackets and center sills to hold the brackets in place, bottom plates beneath the draft sills, the bottom plates being provided with portions projecting beyond the vertical faces of the draft sills, connecting bolts extending between the bottom plates and anchor brackets, and draft lugs secured to the draft sills, said draft lugs being placed over the connecting bolts on the inner sides of the center sills and draft sills, substantially as specified.

2. In a draft rigging, the combination with center sills, of draft sills fitting beneath the center sills, anchor brackets on the inner and outer sides of each center sill, said brackets having portions thereof seated in gains in the sides of the center sills, both extending through the brackets and center sills to hold the brackets in place, draft lugs secured to the draft sills, the lugs being placed on the inner sides of the center sills and draft sills shock absorbing mechanism including followers mounted between the draft lugs, bottom plates beneath the draft sills, the bottom plates being provided with portions projecting beyond the vertical faces of the draft sills, the inner projecting portions forming supports for said followers, and connecting bolts extending between the bottom plates and the anchor brackets and located on the inner sides of the draft lugs, substantially as specified.

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Witnesses:
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