

J. E. TROUP

DRAW BAR.

APPLICATION FILED JUNE 28, 1909.

950,643.

Patented Mar. 1, 1910.

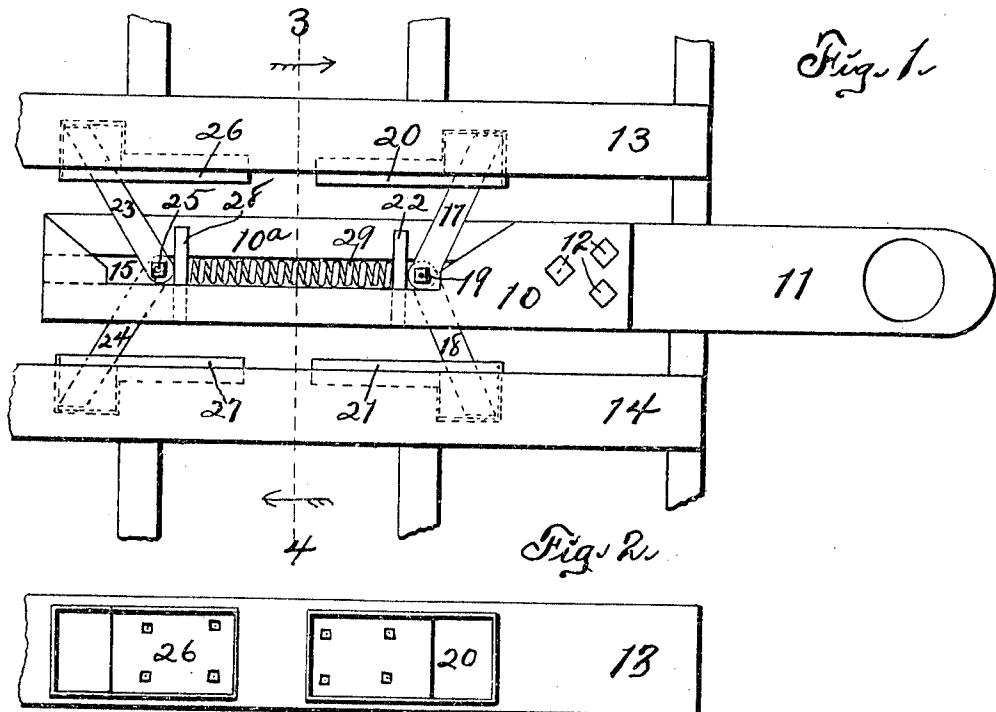


Fig. 3.

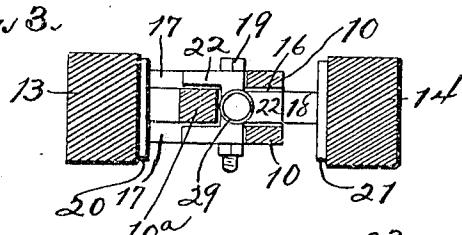
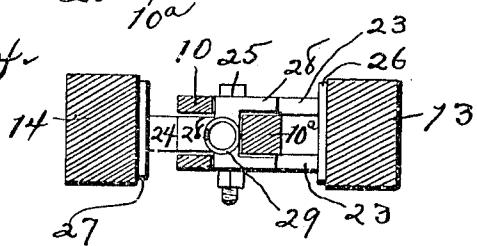


Fig. 4.



Witnesses:

Kans Pedersen
Eric W. Miller

Inventor: Jacob E. Troup,
By Thomas G. Orwig, Es. Attorney.

UNITED STATES PATENT OFFICE.

JACOB E. TROUP, OF PERRY, IOWA.

DRAW-BAR.

950,643.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Application filed June 28, 1909. Serial No. 505,286.

To all whom it may concern:

Be it known that I, JACOB E. TROUP, a citizen of the United States, residing at Perry, in the county of Dallas and State of 5 Iowa, have invented a new and useful Draw-Bar, of which the following is a specification.

The object of this invention is to provide an improved construction for draw-bars for railway cars.

10 A further object of this invention is to provide improved means for connecting a draw-bar yieldingly to draft timbers of a railway car.

15 My invention consists in the construction, arrangement and combination of elements hereinafter set forth, pointed out in my claims and illustrated by the accompanying drawing, in which—

20 Figure 1 is a plan illustrating the construction and mounting of my improved draw-bar relative to draft timbers of a car. Fig. 2 is an elevation of one side of one of the draft timbers. Fig. 3 is a cross-section on the indicated line 3—4 of Fig. 1 looking 25 in one direction, and Fig. 4 is a cross-section on the same line looking in the opposite direction.

20 In the construction of the draw-bar and its mounting as shown the numeral 10 designates the body member and 11 an extension member adapted to be bolted to the body member as shown and further adapted to be connected to a draw-head or coupler (not shown) of any desired form. The body member 10 is 35 mounted between draft timbers 13, 14 of a railway car and is adapted to be secured thereto in the manner about to be described. The body member 10 of the draw-bar is formed with a central bore or aperture 15,

40 which opens to the rear end thereof and extends nearly to its forward end. The body 10 of the draw-bar is formed with a slot 16 in one side, which slot opens to the central bore 15. The body portion 10 of the draw-bar also is formed with slots above and below and opening to the central bore 15 and on one side of the vertical slots the member 10 is rabbeted at the top and bottom to produce a bar or rib 10^a. The end portions of the 45 rabbets are beveled. A bifurcated brace 17 straddles and extends across the forward end portion of the rib 10^a. A brace 18 extends through the forward end portion of the slot 16. The inner end portions of the braces 17,

50 18 overlap and are pivotally connected by a bolt 19 extending vertically through the for-

ward end portion of the bore 15 and through the slots above and below said bore. Beveled end portions of the braces 17, 18 extend within metal boxes or sockets 20, 21 60 embedded in and fixed to opposite faces of the draft timbers 13, 14 and normally extend obliquely forward from the bolt 19. A presser plate 22 is mounted in contact with the rear margins of the inner end portions of the braces 17, 18. One end portion of the presser plate 22 is forked and straddles the rib 10^a while the other end portion of said presser plate is reduced in width relative to the fork and extends through the slot 16. 70 A bifurcated brace 23 straddles and extends across the rear end portion of the rib 10^a. A brace 24 extends through the rear end portion of the slot 16. The inner end portions of the braces 23, 24 overlap and are pivotally 75 connected by a bolt 25 extending vertically through the rear end portion of the bore 15 and through the slots above and below said bore. Beveled end portions of the braces 23, 24 extend within metal boxes or sockets 80 26, 27 embedded in and fixed to opposite faces of the draft timbers 13, 14 at the rear of the boxes 20, 21 and normally extend obliquely rearward from the bolt 25. A presser plate 28 is mounted in contact with 85 the forward margins of the inner end portions of the braces 23, 24. One end portion of the presser plate 28 is forked and straddles the rib 10^a while the other end portion of said presser plate is reduced in width 90 relative to the fork and extends through the slot 16.

95 An expansive coil spring 29 is mounted in the bore 15 and impinges at opposite ends with the presser plates 22 and 28. In assembling the parts the spring 29 is inserted in the bore before the presser plate 28, braces 23, 24 and bolt 25 are placed in position, for the reason that said spring is of larger diameter than the width of the slots 100 opening to said bore and must be introduced to the bore at the rear end of the member 10.

105 In practical use the parts are assembled as shown. Any draft on the bar members 10, 11 is cushioned by the spring 29 and is transmitted laterally on inclined planes through the braces 17, 18 to the boxes or sockets 20, 21 and draft timbers 13, 14. Any pressure or impact on the bar members 110 10, 11 is cushioned by the spring 29 and is transmitted through the presser plate 28

and braces 23, 24 laterally on inclined planes to the boxes or sockets 26, 27 and draft timbers 13, 14. The desirable amount of slack or freedom of movement of the bar members 10, 11 longitudinally relative to the draft timbers 13, 14 is provided for by making the bore 15, slot 16 and rabbets on opposite sides of the bar 10^a of greater length than the spaces between the forward faces of the inner ends of the braces 17, 18 and the rear faces of the inner ends of the braces 23, 24 (Fig. 1).

I claim as my invention—

1. The combination of draft timbers, a draw bar mounted between said timbers, braces pivotally connected at their inner ends and extending obliquely across and arranged in pairs at opposite ends of said draw bar, outer end portions of said braces loosely engaging said draft timbers, and yielding pressure devices interposed between the pivoted ends of the pairs of braces.

2. The combination of draft timbers, a draw bar mounted between said timbers and formed with a longitudinal slot, braces pivotally connected at their inner ends and extending obliquely across said draw bar at opposite ends of said slot, outer end portions of said draw bar loosely engaging said draft timbers, and yielding pressure devices mounted in said slot and interposed between the pivoted ends of the pairs of braces.

3. The combination of draft timbers, a draw bar mounted between said timbers and formed with a longitudinal bore, pairs of braces arranged at opposite ends of said bore, each pair of braces crossing said draw bar and pivoted together coincident with said bore, one pair of braces extending obliquely forward and the other pair of braces extending obliquely rearward, outer ends of said braces loosely engaging said draft timbers, and yielding pressure devices interposed between the apices of the pairs of braces.

4. The combination of draft timbers,

sockets therein, a draw-bar mounted between said timbers, pairs of braces spaced apart longitudinally of said draw-bar, each pair of braces crossing said draw-bar and pivotally connected at the center thereof, one pair of braces extending obliquely forward and the other pair of braces extending obliquely rearward, presser plates between said pairs of braces, and an expansive spring between and impinging on said presser plates.

5. A draw-bar formed with a longitudinal bore opening to one end thereof and also formed with slots in its sides communicating with said bore and rabbets communicating with some of said slots, presser plates mounted transversely of said draw-bar, each plate forked at one side and reduced in width at the other side, a cushioning spring between said presser plates and within the bore of the draw-bar, and braces carried by said draw-bar and extending obliquely therefrom, said braces adapted to be engaged by said presser plates on one side and by the draw-bar opposite thereto,

6. A draw-bar formed with a longitudinal bore opening to one end thereof and also formed with slots in its sides communicating with said bore and rabbets communicating with some of said slots, presser plates mounted transversely of said draw-bar, each plate forked at one side and reduced in width at the other side, a cushioning spring between said presser plates and within the bore of the draw-bar, and braces carried by said draw-bar and extending obliquely therefrom, said braces adapted to be engaged by said presser plates on one side and by the draw-bar opposite thereto, some of said braces forked and others of said braces reduced in width and pivotally connected to the forked ends of the first braces.

JACOB E. TROUP.

Witnesses:

CHARLES WELLS,
F. B. WOOD.