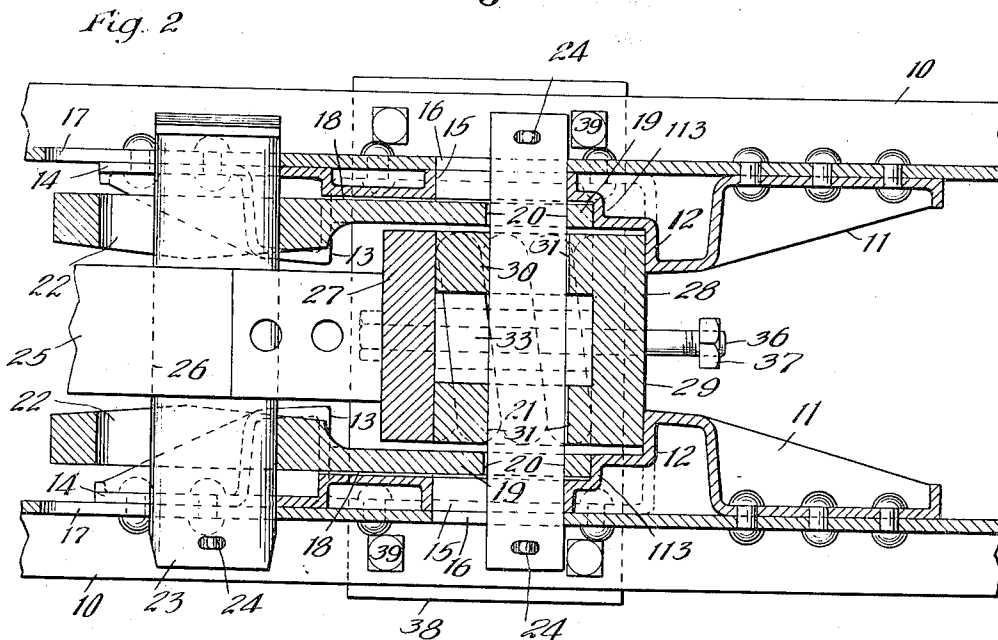
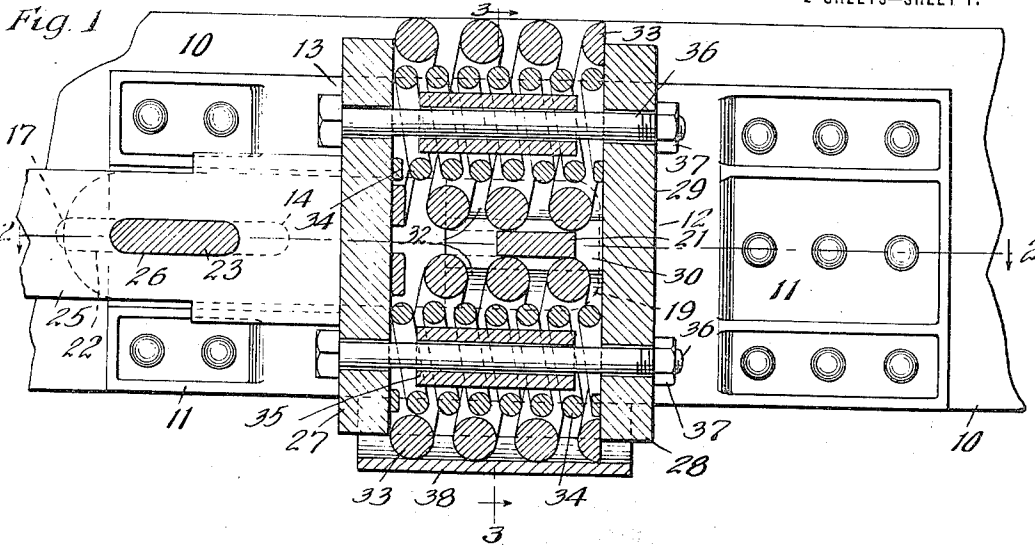


C. B. PATCH.
DRAFT RIGGING FOR RAILWAY CARS.
APPLICATION FILED JULY 25, 1914.

1,176,979.

Patented Mar. 28, 1916.

2 SHEETS—SHEET 1.



WITNESSES:

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BY *Calvin B. Patch*
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Fig. 3

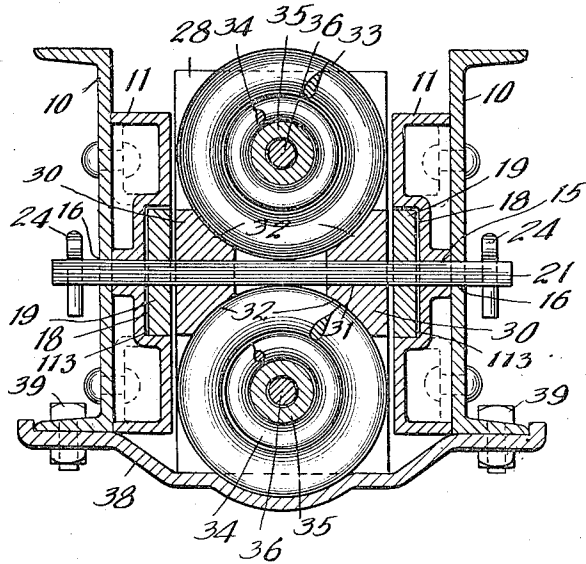
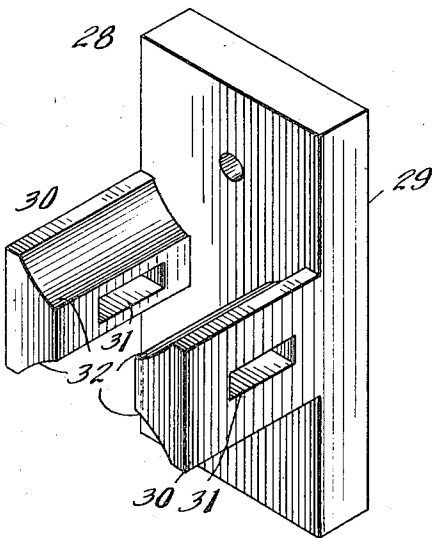


Fig. 4



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DRAFT-RIGGING FOR RAILWAY-CARS.

1,176,979.

Specification of Letters Patent.

Patented Mar. 28, 1916.

Application filed July 25, 1914. Serial No. 853,004.

To all whom it may concern:

Be it known that I, CALVIN B. PATCH, a citizen of the United States, residing at Glenellyn, in the county of Dupage and State of Illinois, have invented a certain new and useful Improvement in Draft-Rigging for Railway-Cars, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to improvements in draft riggings for railway cars.

The object of the invention is to provide a draft rigging for railway cars of simple and efficient construction and one which is adapted to distribute the shocks to the draft sills at a plurality of points simultaneously.

Other objects of the invention will more fully appear from the description herein-after given.

In the drawing forming a part of this specification, Figure 1 is a longitudinal central vertical sectional view of a draft rigging showing my improvements in connection therewith. Fig. 2 is a horizontal sectional view taken substantially on the section line 2—2 of Fig. 1 showing parts under buff. Fig. 3 is a transverse vertical sectional view taken substantially on the line 3—3 of Fig. 1 and Fig. 4 is a detail perspective view of the rear follower employed in my improved gear.

In said drawing, 10—10 denote the center sills or other draft members to which are attached the stop plates 11—11, each of said stop plates being provided with a rear follower stop shoulder 12, a link stop shoulder 113 adjacent the stop shoulder 12, front follower stop shoulder 13 and longitudinally extended slots 14 and 15, the latter being alined with an elongated slot 16 in the draft sill and the slot 14 being alined with an elongated slot 17 in the draft sill. The front and rear follower stop shoulders 13 and 12 are formed in pairs on each stop member 11 and between the same is provided a longitudinally extending channel 18 in which channels reciprocate draft links 19—19, each link 19 being slotted as at 20 to receive a rear connecting key 21 therethrough and also at 22 to receive the coupler key 23. As clearly shown in the drawing, the keys 21 and 23 reciprocate in the slots

15—16 and 14—17, respectively, provided in the stop members and draft sills. The keys may be held in place by any suitable means such as the cotters 24—24.

25 denotes the rear end of a draw-bar of standard construction which is provided with an elongated slot 26 through which the coupler key 23 extends and in which it is adapted to reciprocate. The rear end of the draw-bar engages a front follower 27 which normally engages the front stop shoulders 13 as indicated in Fig. 1.

The rear follower 28 (see Fig. 4) comprises a vertical member 29 and forwardly extended, centrally located arms 30 on each side thereof, each of said arms 30 being slot- ted as indicated at 31 to receive the key 21 therethrough. Each arm or extension 30 is also provided with upper and lower curved spring seats 32—32 against which rest, and are positioned thereby, the outer coils 33—33 of twin arranged sets of springs mounted between the followers. Each set of springs is also provided with an inner coil 34 which is mounted on a sleeve or bushing 35, the sleeves 35 being slidably mounted on bolts 36 which extend through slots provided in the front and rear followers, the bolts 36 being held in position by the heads at one end thereon and the nuts 37 at the opposite ends.

38 denotes a saddle plate secured to the center or draft sills by any suitable means such as the bolts and nuts 39 and 39, the saddle 38 coöperating with the key 21 to hold the gear in place, it being evident from an inspection of Figs. 1 and 3, that the key passes between the two sets of twin arranged springs.

The operation is as follows:—Upon buffing movement, the inner end of the draw-bar engages the front follower 27 and forces the same rearwardly thereby compressing the springs between it and the rear follower 28 which is prevented from rearward movement by the shoulders 12—12. At the end of the buffing movement, the front follower engages the front ends of the arms or extensions 30 of the rear follower and simultaneously the key 21 engages the rear ends of the slots in the draft sills and stop members. In addition to the foregoing means for transmitting the shocks to the sills, it will be noted that the coupler key 23 also simultaneously engages the rear ends of the slots 14

and 17 in the stop members and sills and the rear ends of the slots 22 in the draft links, the rear ends of the draft links being also in engagement with the link stop shoulders 113—113. In this manner, the strains at the end of the buffing movement are transmitted to the stop members and sills at four points simultaneously on each side of the gear, namely, at the rear ends of the slots 14 and 17 by the key 23; at the rear ends of the slots 15 and 16 through the key 21; at the link stop shoulders 113; and at the rear follower stop shoulders 12.

Under draft, the operation is the reverse of that above described for buffing, it being understood that the rear follower is pulled forwardly through the intermediary of the links 19—19 and key 21 and the final shocks under draft are transmitted through the front stop shoulders 13—13 and through the key 21 at the forward ends of the slots 15 and 16.

I have herein described in detail one form of my invention but I am aware that various changes and modifications may be made without departing from the spirit of my invention and all such changes and modifications are contemplated as come within the scope of the claims appended hereto.

I claim:

1. In a draft rigging for railway cars, the combination with slotted draft sills having stop members secured thereto, said stop members being provided with link stop shoulders and also slotted to receive a key therethrough, of a draw-bar, front follower, rear follower, shock absorbing means between the followers, links connected to the draw-bar, and a key passing through said rear follower, the links and the slots in the stop members and sills, the rear ends of the links engaging the link stop shoulders simultaneously with the engagement of said key with the rear ends of the slots in the stop members and sills in buffing movement.
2. A stop casting for draft riggings having front and rear stop shoulders for followers to abut against, said casting being provided with a substantially centrally disposed longitudinally extending channel adapted to receive a horizontal link, the casting having a shoulder at the rear end of said channel for the inner end of the link to abut against.

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Witnesses:

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