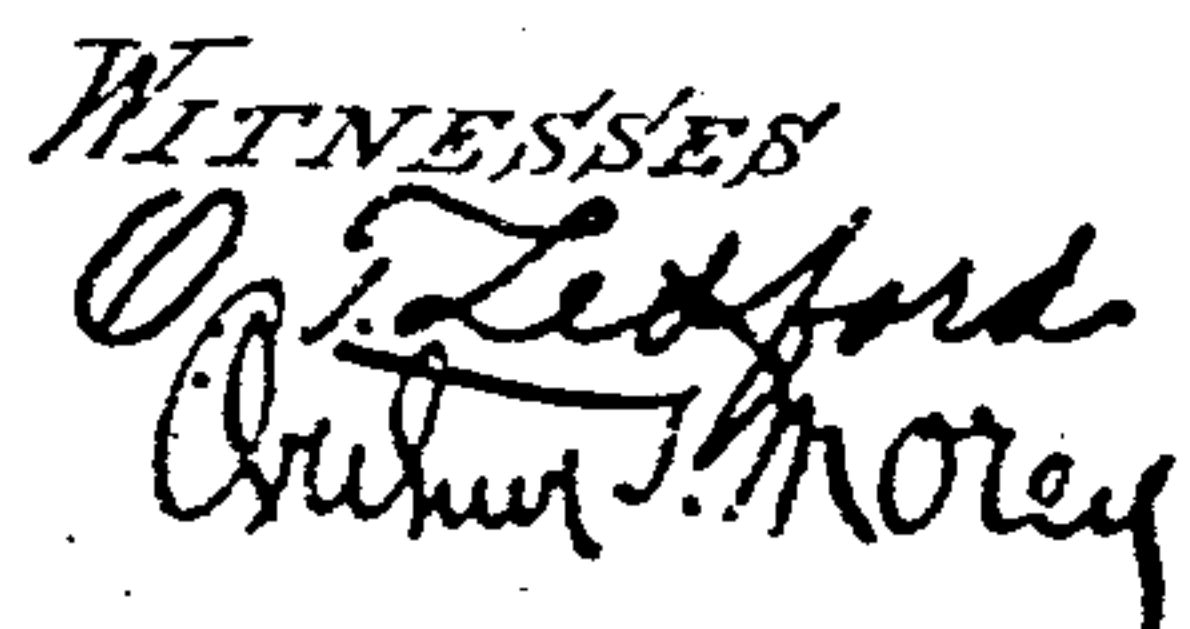


899,090.

Patented Sept. 22, 1908.



INVENTOR
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UNITED STATES PATENT OFFICE.

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DRAFT-GEAR FOR RAILROAD-CARS.

No. 892,090.

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed August 26, 1907. Serial No. 390,171.

To all whom it may concern:

Be it known that I, CHARLES T. WESTLAKE, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented a new and useful Improvement in Draft-Gear for Railroad-Cars, of which the following is a specification.

My invention relates particularly to that class of draft-gear for a railroad car in which the springs arranged on each side of the longitudinal center of the car, with their follower-plates actuated by the draw-bar and yoke, are combined directly with the body-bolster, and my invention has for its object to provide a compact, self-contained draft-gear of this type having its parts collectively removable and adapted to be applied either to the body-bolster or forward of the same to the middle longitudinal sills, draft-timbers, or other fixed member or members of the car underframe suitable for the purpose, and to be self-centering.

The invention consists in features of novelty as hereinafter described and claimed, reference being had to the accompanying drawing forming part of this specification, wherein,

Figure 1, is a vertical longitudinal section through my improved draft-gear as applied to a car body-bolster, seen in corresponding cross-section, on line 1, 1, in Fig. 2; Fig. 2, a horizontal section through the body-bolster on line 2, 2, in Fig. 1, and a top plan view of the draft-gear applied thereto; Figs. 3, and 4, cross sections through the draft-gear on lines 3, 3, and 4, 4, respectively, in Fig. 1; Fig. 5, a top plan view to reduced scale of the draft-gear and its attachment to the car sills or draft-timbers forward of the bolster, and Fig. 6, a front view of the attachment, omitting the draft-gear.

Like letters and numerals of reference denote like parts in all the figures.

My improved draft-gear consists of a metallic (preferably cast steel) housing or box *a*, which may be of any suitable design, preferably open at the bottom, and having when assembled, its longitudinal center corresponding to that of the car.

Arranged longitudinally within the housing *a* between its front and rear walls 1, 1', are preferably two springs *b*, one on each side of and equidistant from the said center, the springs *b* having a front follower-plate *c* adapted to normally bear against the front

wall 1, and a rear follower-plate *c'*, against the rear wall 1' of the housing *a*, the said springs *b* and plates *c*, *c'*, being straddled by a pocket-strap or yoke *d*, fixed at its free ends to the draw-bar *e* having a suitable coupler (not shown) of the usual construction, and adapted to play longitudinally through the housing *a* and openings 2 therefor through its front and rear walls 1, 1', respectively, as shown.

The bottom opening of the housing *a* through which the aforesaid parts are assembled within the housing *a* is adapted to be closed by a removable cover 3, which is fixed by screws 4 to lugs 5 formed in the side walls 6 of the housing *a* at their bottom edges as shown, or in any other suitable manner.

For applying the draft-gear thus constructed to a body-bolster *f* of the car, I form or provide the rear wall 1' of the housing *a* with preferably, two outwardly projecting horizontal and laterally converging arms or brackets 7, one above the other at a suitable distance apart, the arms 7 being perforated vertically, preferably at their outer portions, and adapted thereat to pivot around a vertically arranged preferably, cylindrical pin 8, which is removably inserted from above between the longitudinal sills of the car underframe through a corresponding hole in the top member 9 and adapted to bear at its lower end in a corresponding socket or recess in the bottom member 10 of the bolster *f* at its central portion, whereby the pin 8 while fixed to the latter in the pulling and buffing movements of the draft-gear, can be withdrawn therefrom vertically for disconnecting the parts, the bolster *f* in the present case being preferably made of cast steel I-shaped in cross section, and the metal omitted from the middle portion of the web 11 of the bolster *f* for the passage of the pin 8 and play of the arms 7, compensated for by a strengthening rib 12, which straddles the pin 8 between the arms 7 and unites the divided portions of the web 11 thereat as shown. Or the divided web 11 may be united or reinforced in any other suitable manner.

Projecting to an equal distance from the web 11 of the bolster *f* on its front side, are two lugs 13, which are arranged at the same distance apart, or thereabout, as the springs *b* and in the same horizontal plane therewith, the outer end of each lug 13 being adapted to pass through an opening 14 therefor in the rear wall 1 of the housing *a* and to bear

against the outer face of the rear follower-plate *c'* opposite to the end of the corresponding spring *b* against its inner face, in the normal central position of the draw-bar *e*, whereby, when the draw-bar *e* is constrained to one side, on the car rounding a curve, the spring *b* on the concave side of the curve will be compressed by the pressure of the corresponding lug 13 against the rear follower-plate *c'* thereat in excess of the other spring *b*, the rear follower-plate *c'* at the same time being inclined relatively to the front follower-plate *c*, and on the removal of the constraining stress the tension of the springs will become equalized and the draw-bar *e* returned to its normal position, or self-centered.

In the above construction of draft-gear, by inclosing the springs and follower-plates with the pocket-strap attached to the draw-bar, within a housing or box removably pivoted, but otherwise unfastened to, and free from the car underframe, should either of the parts become broken, the entire draft-gear can be readily removed and a duplicate set with the parts already assembled substituted therefor, whereby the delay of disconnecting the parts from each other in case of emergency is avoided.

Figs. 5 and 6, show the application of my improved draft-gear to the car underframe forward of the body-bolster, in which case the housing or box *a* is pivoted to a pin 15, inserted vertically through the top and bottom members of a hollow block *g*, which extends between, and is fixed laterally to the middle longitudinal sills (or draft-timbers) 16, by bolts 17, or otherwise, the lugs 13' for engaging the rear follower-plate *c'*, and which are similar to the lugs 13 before described, projecting from the inside faces of the side walls of the block *g*. Or the block *g* may be otherwise configured and adapted to form a pivot and means for engaging the rear follower-plate of the draft-gear as found most suitable in practice according to the construction of the underframe to which the draft-gear is applied.

What I claim as my invention and desire to secure by Letters Patent is:

1. In draft-gear of the class described, the combination with a car underframe, of a spring member, a front follower-plate and a rear follower-plate for the said member, a draw-bar, a yoke fixed to the draw-bar and straddling the said plates, a suitable housing adapted to contain the said member and plates and for the play of the yoke longitudinally therethrough, the said housing being pivoted rearwardly, but otherwise un-

attached to the said frame, and movable radially about its pivotal point in a horizontal plane, and means for inclining the rear follower-plate relatively to the front follower-plate upon the swinging of the draw-bar, substantially as described and for the purpose set forth.

2. In draft-gear of the class described, the combination with a car underframe, of two springs arranged longitudinally, one on each side of the longitudinal center of the car, a front follower-plate and a rear follower-plate for the said springs, a draw-bar, a yoke fixed to the draw-bar and straddling the said plates, a suitable housing adapted to contain the said springs and plates, and for the play of the yoke longitudinally therethrough, and a pin removably fixed to the said frame, the said housing being rearwardly pivoted, but otherwise unattached to the said frame, and movable radially about the said pin in a horizontal plane, and means for inclining the rear follower-plate relatively to the front follower-plate upon the swinging of the draw-bar, substantially as described and for the purpose set forth.

3. In draft-gear of the class described, the combination with a car-body-bolster, of two springs arranged longitudinally, one on each side of the longitudinal center of the car, a front follower-plate and a rear follower-plate for the said springs, a draw-bar, a yoke fixed to the draw-bar and straddling the said plates, a suitable housing adapted to contain the said springs and plates, and for the play of the yoke longitudinally therethrough, a pin removably fixed in the body-bolster, an arm projecting rearwardly from the housing and perforated for the passage of the said pin therethrough, the said housing and arm being movable radially about the said pin in a horizontal plane, but otherwise unattached to the car, and a lug projecting from the body-bolster at each side of the said center and adapted to bear at its free end against the rear follower-plate in the normal central position of the draw-bar, and upon the swinging of the draw-bar to incline the rear follower-plate relatively to the front follower-plate for compressing one of the said springs in excess of the other spring, substantially as described and for the purpose set forth.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

CHARLES T. WESTLAKE.

Witnesses:

O. T. LEDFORD,
EDWARD W. FURRELL.