

(No Model.)

G. L. WEISS.
DRAFT RIGGING FOR CARS.

No. 569,696.

Patented Oct. 20, 1896.

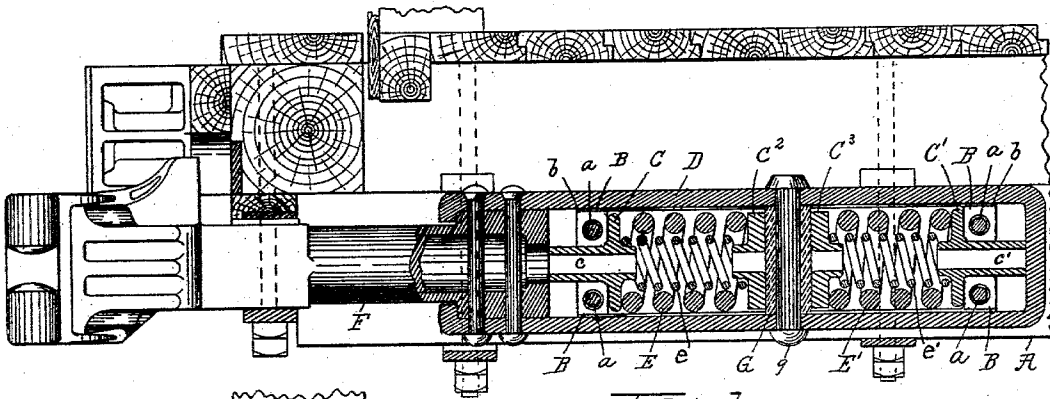


Fig. 1

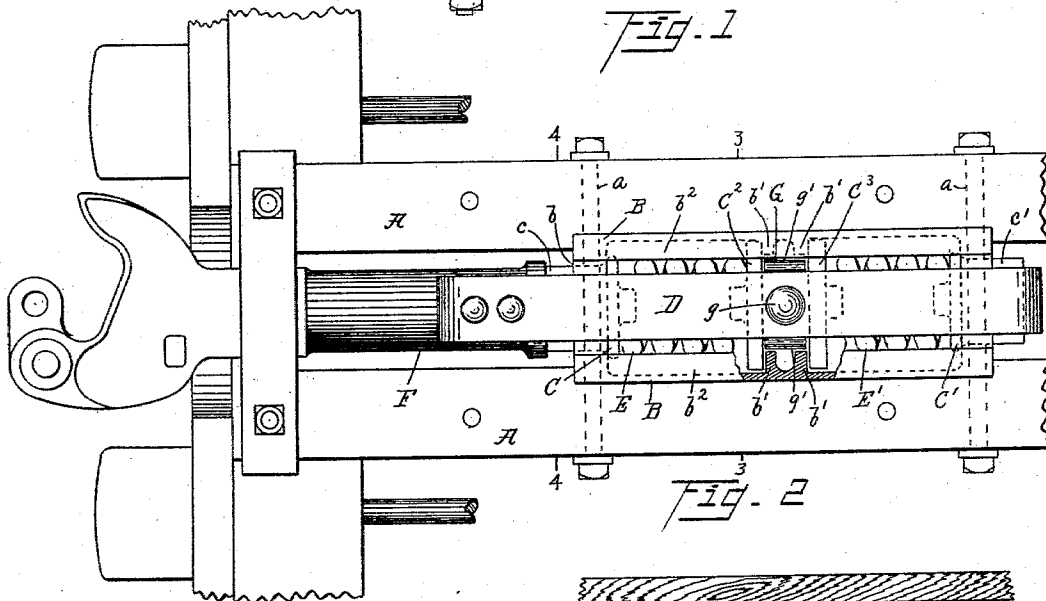
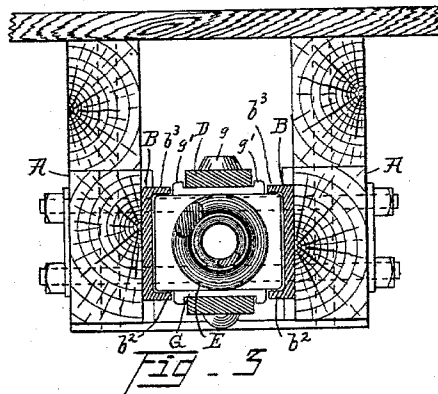
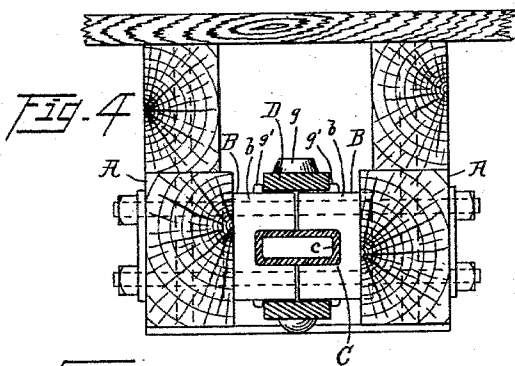


Fig. 2



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE L. WEISS, OF CLEVELAND, OHIO.

DRAFT-RIGGING FOR CARS.

SPECIFICATION forming part of Letters Patent No. 569,696, dated October 20, 1896.

Application filed March 19, 1896. Serial No. 584,008. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. WEISS, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Draft-Rigging for Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to that class of draft-rigging for cars in which one or more springs are combined with the draw-bar in such manner as to cushion the shocks and jars and take up the strain, incident both to pulling and pushing the car, through said draw-bar.

The object of the invention is to provide novel mechanism of this character which shall be strong, durable, and simple in construction, and in which the maximum of spring action may be attained for the purposes stated.

The invention consists in the construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a central vertical longitudinal section of my improved mechanism. Fig. 2 is an inverted plan view thereof. Fig. 3 is a transverse sectional view on line 3 3 of Fig. 2, and Fig. 4 is a transverse sectional view on line 4 4 of Fig. 2.

Referring to the parts by letter, A A represent the two draft-timbers by which, preferably, the draft-rigging is supported.

B B represent two halves or sections of a casing which is adapted to contain the springs and followers, hereinafter described. Each half of the casing is provided at each end with a transverse buffer-plate *b* and midway between said end plates with an internal rib *b'*. On the upper and lower edges of each case-section are the inwardly-projecting flanges *b² b³*, which prevent the removal of the followers or springs. These two case-sections are let into the sides of the draft-timbers A A opposite to each other and are there secured by transverse bolts *a a*.

Two follower-plates C C' lie within the casing at opposite ends thereof. They are provided with stems *c c'*, which pass through holes in the end plates *b b* and are adapted

to be engaged by the end of the strap D and the end of the draw-bar, respectively. Two other follower-plates C² C³ lie normally against opposite sides of the ribs *b'*, within the casing, resting upon the lower flanges *b²*. A strap D embraces the casing, follower-plates, and springs, and the draw-bar F lies between and is secured to the front ends of said strap.

A presser-bar G lies between the two followers C² C³, and it is secured by the rivet or bolt *g* to the two legs of the strap D. The parts of the upper and lower edges of the bar G with which the strap is in contact are cut away, leaving the shoulders *g' g'* at the sides of the strap, which prevent the bar from twisting upon the rivet *g*.

Two springs E E', arranged tandem with respect to each other, lie within the casing, and are somewhat compressed between the follower-plates C C² and C³ C', respectively. These springs, by reason of the described construction, act simultaneously and jointly to resist the movement of the draw-bar in either direction.

Supplemental springs *e e'* may or may not be employed. When employed, they lie within the springs E E' and between the said follower-plates.

When the draw-bar is drawn forward, the end of the strap, engaging with the stem of the follower C', moves it forward, and the bar G moves the follower C² forward, and thereby the two springs E E' are respectively compressed between said followers and the followers C C³, which are prevented from moving forward by their engagement with the front buffer-plate *b* and ribs *b'*, respectively. When the draw-bar is moved backward, the followers C and C³ are moved backward by the end of the draw-bar and the cross-bar G, respectively, the follower-plates C' C² being prevented from moving by their engagement with the rear end of plate *b* and ribs *b'*, respectively. When the safety limit of compression in said springs has been reached in both movements, the end of the strap or end of the draw-bar, as the case may be, engages with the casing, whereby further compression of the springs is prevented.

The described mechanism is simple and strong and particularly effective for the pur-

pose of obtaining in both the pulling and buffing movement of the draw-bar the conjoint action of two or more tandem-set springs and in preventing said springs from being compressed beyond the safety limit.

Having described my invention, I claim—

1. In draft-rigging for cars, the combination of the end buffer-plates *b b*, and the inwardly-projecting ribs *b' b'*, follower-plates which normally lie against the inner sides of said buffer-plates and have stems which project out through said buffer-plates, two follower-plates which lie on opposite sides of said ribs and are normally in contact therewith, two springs arranged tandem and placed between the follower-plates as described, a strap which embraces the buffer-plates, followers and springs, a draw-bar which lies between and is secured to the front ends of said strap, and a pressure-bar lying between the two middle follower-plates and secured to said strap, substantially as and for the purpose specified.

2. In draft-rigging for cars, the combination of a casing having end plates and internal ribs near its middle, a strap passing around said casing, and a draw-bar secured to the front end of said strap, with the two follower-plates at the ends of said casing having stems which project out through the end plates of said casing, the two follower-plates which lie within the casing on opposite sides

of said ribs, two springs arranged tandem and placed between the follower-plates as described, and a pressure-bar extending through the casing between the two middle follower-plates, and secured at its ends to the legs of the strap, substantially as and for the purpose specified.

3. In draft-rigging for cars, the combination of a casing composed of two sections, each of which has the end plates *b b*, the internal ribs *b'* near its middle, and the internal longitudinal flanges *b² b³* on its lower and upper edges, a strap passing around said casing, and a draw-bar secured to the front end of said strap, with the two followers within the casing in contact with the ends thereof, having stems which project out through said ends, the two follower-plates which lie between the flanges *b² b³* and on opposite sides of the ribs *b'*, two springs set tandem between said followers as described, and a pressure-bar extending between the legs of the strap and secured thereto by a rivet or bolt, said bar having shoulders *g*, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE L. WEISS.

Witnesses:

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L. F. GRISWOLD.