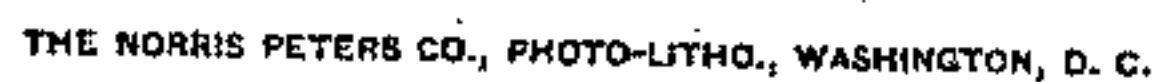


E. GÉANT.
CAR COUPLING.

Patented Sept. 27, 1892.



UNITED STATES PATENT OFFICE.

EUGENE GÉANT, OF FORT LOGAN, COLORADO, ASSIGNOR TO HIMSELF AND
SAMUEL SUTTON, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 483,437, dated September 27, 1892.

Application filed May 14, 1892. Serial No. 432,985. (No model.)

To all whom it may concern:

Be it known that I, EUGENE GÉANT, of Fort Logan, in the county of Arapahoe and State of Colorado, have invented a new and improved Car-Coupler, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved car-coupler which is simple and durable in construction and arranged to permit an easy coupling and uncoupling without the operator stepping between the cars.

The invention consists of certain parts and details and combinations of the same, as will be fully described hereinafter, and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improvement as applied. Fig. 2 is an inverted plan view of the same with parts in section. Fig. 3 is a reduced front view of the improvement as applied. Fig. 4 is an enlarged perspective view of the draw-bar, and Fig. 5 is an enlarged transverse section of the coupled draw-bars with the clasp in position on the line 5 5 of Fig. 1.

The improved car-coupler as applied to an ordinary car A is provided with a draw-bar B, extending under the car A and formed at its inner end with a plate C, fitted to slide longitudinally in suitable guideways D, arranged on the under side of the car, as is plainly illustrated in Fig. 2. A spring E, held on the car, presses against the said plate C, so as to hold the draw-bar in an outermost position and to permit a rearward sliding of the said draw-bar and coupling when two cars come together. The draw-bar B passes through a casing F, attached to the under side of the car A, and on one side of the said draw-bar presses a spring G, secured in the said casing and pressing with its free end on the side of the draw-bar, as is plainly shown in Fig. 2. The outer end of the draw-bar B is formed with a head B', having the rounded-off end B², and an inclined shoulder B³, adapted to engage a corresponding shoulder on the opposite draw-bar. The head B' of each draw-bar is also

formed with a transversely-extending slot B⁴, adapted to receive an ordinary coupling-link in case a car provided with my improvement is to be coupled with a car having the ordinary link-and-pin coupling.

In order to hold the ordinary coupling-link in position on the head B', the latter is provided with a vertical aperture B⁵ for the insertion of the pin, said pin engaging the link held in the slot B⁴ in the usual manner.

On the draw-bar B a short distance to the rear of the head B' is pivoted at H' a clasp H, formed with two downwardly-extending prongs H², placed a distance apart corresponding to the width of the two coupled heads B' of the draw-bars. The lower ends of the prongs H² are curved outward slightly, as at H³, so that when the clasp H swings downward the prongs H² readily engage the sides of the heads B' of the coupled draw-bars. (See Figs. 1, 2, and 5.) The prongs H² are of sufficient length to prevent accidental disengagement of the clasp H by a jar or other cause.

On the front end of the clasp H is formed an eye H⁴, connected with one end of a chain I, extending upward and connected with an arm J, secured on a transversely-extending shaft K, mounted to turn in suitable bearings on the end of the car A. The ends of the shaft K reach to the sides of the car A, and on the outer ends of the shaft are secured handles L for conveniently turning the said shaft K to raise or lower the clasp H, so as to move the same into or out of engagement with the two coupled heads of the draw-bars. The clasp H is also connected with a chain N, extending upward to the top of the car to connect with a lever O, fulcrumed on the top of the car and provided with a foot-rest O', adapted to be engaged by the foot of the operator standing on top of the car. A spring P presses on the said lever O to hold the same in a normal position—that is, the end connected with the chain N downward to permit the clasp to lock the coupled heads, as before explained.

The operation is as follows: When the car is not coupled, the draw-bar extends longitudinally in the middle of the car, with the clasp H in an uppermost position. When it is desired to couple two cars, the latter are moved toward each other, so that the curved

ends B² on the heads B' strike each other, thus swinging the bars sidewise against the tension of the springs G. The heads B' of the two draw-bars pass each other until the shoulders B³ engage one another, as is plainly illustrated in Fig. 2, the heads B' of the draw-bars being pressed together by the action of the springs G. As soon as the heads of the said draw-bars are engaged the operator swings one of the clasps H downward, so that the prongs H² of the said clasps engage the sides of the two engaged heads B' of the draw-bars, thus locking the said draw-bars in place. Now it will be seen that all longitudinal strain is taken up by the shoulders B³ of the two heads, while the latter are prevented from drawing apart by the arms or prongs H² of the locking-clasp H. When it is desired to uncouple, whether the cars are in motion or at a standstill, the operator simply moves the handles L, so as to turn the shaft K to swing the arm J upward, whereby the chain I causes the clasp H to swing upward and rearward. The

arms H² of the said clasp then disengage the sides of the draw-bar heads, and on pulling the cars apart the two heads are disengaged and the cars are uncoupled. 25

Having thus described my invention, I claim as new and desire to secure by Letters Patent— 30

A car-coupling comprising the laterally-swinging longitudinally-yielding draw-head, springs G E therefor, the clasp H, pivoted on the draw-head and provided with an eye H⁴ and depending sides H², flared outwardly, as at H³, the transverse shaft K, having arms L and an intermediate arm J, a chain I, connected with eye H⁴ and arm J, the lever O for the top of the car, and a chain N, connecting the lever with the clasp, substantially as set forth. 35 40

EUGENE GÉANT.

Witnesses:

MICHAEL KELLY,
HARRY J. DUGAN.