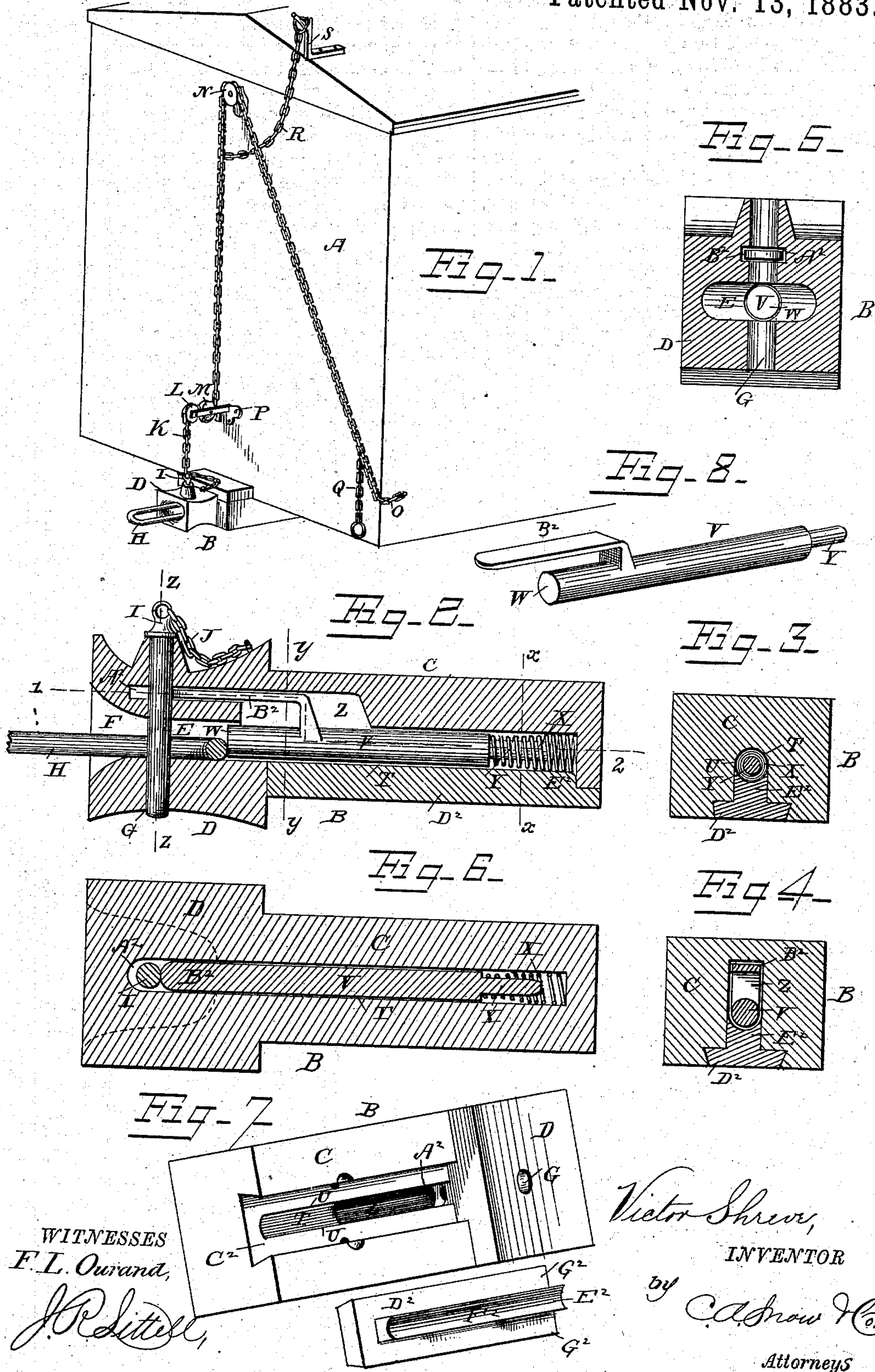


(No Model.)

V. SHREVE.  
CAR COUPLING.

No. 288,504.

Patented Nov. 13, 1883.



WITNESSES  
F. L. Ourand,

J. R. Little,

Victor Shreve,  
INVENTOR

by C. A. Snow & Co.  
Attorneys



# UNITED STATES PATENT OFFICE.

VICTOR SHREVE, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO  
BOLIVAR MEEKER, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 288,504, dated November 13, 1883.

Application filed August 30, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, VICTOR SHREVE, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Car-Coupling, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to car-couplings of that class which effect an automatic coupling and can be uncoupled without going between the cars; and its object is to provide a coupling possessing superior advantages in point of simplicity, inexpensiveness, durability, safety, and general efficiency.

In the drawings, Figure 1 is a perspective view of the end of a car having my improved coupling. Fig. 2 is a vertical longitudinal detail sectional view through the draw-head. Fig. 3 is a transverse vertical sectional view on the line *xx*, Fig. 2. Fig. 4 is a corresponding view on the line *yy*, Fig. 2. Fig. 5 is a corresponding view on the line *zz*, Fig. 2. Fig. 6 is a horizontal longitudinal sectional view on the line 1 2, Fig. 2. Fig. 7 is a detail perspective view of the draw-head, the bottom plate being separated and disposed to show its under side. Fig. 8 is a detail perspective view of the sliding bolt and pin-support.

Referring to the drawings, A designates the end of a car to which my improved coupling is applied.

The draw-head B comprises a stem, C, and a head, D, in which latter portion is formed the link-recess E, having the mouth F and the pin-perforation G, in which the coupling-pin is retained to effect the coupling with an ordinary link, H.

The coupling-pin I is preferably secured to the draw-head by means of a chain, J, connected with the eye of said pin and with the draw-head, and the pin is operated to uncouple by means of a chain, K, extending from its eye up and over a pulley, L, under another pulley, M, up and over a pulley, N, near the top of the car, and from thence down and secured to the car at its lower end, O.

The pulleys L and M are journaled one in front of the other in a bracket, P, projecting from the end of the car over the draw-head.

An auxiliary chain, Q, is attached to chain K near its end O, by which the said chain can be operated from the side of the car, and another auxiliary chain, R, is attached to chain K below the pulley N, by which it can be operated from the top of the car, said chain R being retained in position by a bracket, S, on top of the car.

From the recess E in the draw-head extends a cylindrical bore, T, having concaved walls U and extending nearly to the rear end of the draw-head, and in this bore is seated a neatly-fitting cylindrical bar, V, the front end, W, of which projects into the recess E by action of a coiled spring, X, that encircles the rear shouldered end, Y, of bar V, the spring being preferably of conical form, with its smaller end at the said shoulder.

At the front end of bore T is formed a recess or cavity, Z, in its top wall, U, and from this recess extends a flat channel or extension, A<sup>2</sup>, to the pin-perforation G. The bar V is formed with a right-angular flat plate portion, B<sup>2</sup>, near its front end, which enters the recess Z and its extension A<sup>2</sup> as the bar V is slipped down in position in the draw-head, and it moves with said bar to come under the perforation G and support the pin I. When bar V is forced back against the tension of spring X, the portion B<sup>2</sup> moves from under the perforation G and allows pin I to drop to effect the coupling. The draw-head is preferably cast in one piece with the recesses, and the bar V, with its integral portion B<sup>2</sup>, is neatly seated in the said recesses, and by reason of its simple integral construction is very strong and durable. The forward movement of said bar V is limited by the front end of channel A<sup>2</sup>.

The bottom of the bore T is open to permit of the insertion and removal of the bar V, and the under side of the draw-head has a groove wider than this open bottom C<sup>2</sup>, which groove receives a cover or plate, D<sup>2</sup>, that has a longitudinal interior rib, E<sup>2</sup>, that serves to close the bottom C<sup>2</sup> when the cover-plate is in position, and is provided with a concaved inner edge, F<sup>2</sup>, that receives the corresponding under side of bolt or bar V. This rib thus forms the bottom wall of the bore T. The plate D<sup>2</sup> is held in place preferably by dove-



tailed side edges,  $G^2$   $G^2$ , and may be secured at its rear end by any suitable fastening.

I claim as my invention—

1. The combination of the draw-head having the link-recess, pin-perforation, the bore T, extending from the link-recess nearly to the end of the draw-head, the recess or cavity in the top of said bore at its front end, and the forward extension or channel of this recess, the bar having the integral right-angular portion at its front end, and seated in these recesses, as described, the coiled actuating-spring, and a cover-plate having an interior rib or projection that enters the open bottom of the bore and comes against the bar, to secure the same in place and provide a bearing for the same, substantially as and for the purpose set forth.

2. The combination of the draw-head formed of a single piece, and having the link-recess, pin-perforation, bore T, extending from the link-recess, the recess or cavity in the top wall of said bore at its front end, the forward extension or channel from said cavity, the open bottom of the bore, and the broad groove

extending longitudinally and across the open bottom, the bar comprising the straight main cylindrical portion, and the right-angular integral front plate, said bar being seated, as described, by slipping it through said open bottom, the spring, and the cover-plate fitting in the groove, and provided with a longitudinal rib or projection that closes the open bottom and forms the bottom concaved wall of the bore, substantially as and for the purpose set forth.

3. The combination, with the end of the car, of the draw-head, the bracket P, having the pulleys L and M, the top pulley, N, the coupling-pin, the chain K, arranged as specified, and the auxiliary chains Q and R, as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

VICTOR SHREVE.

Witnesses:

FLORENS KRECKE,  
FRANK GROESBECK.