

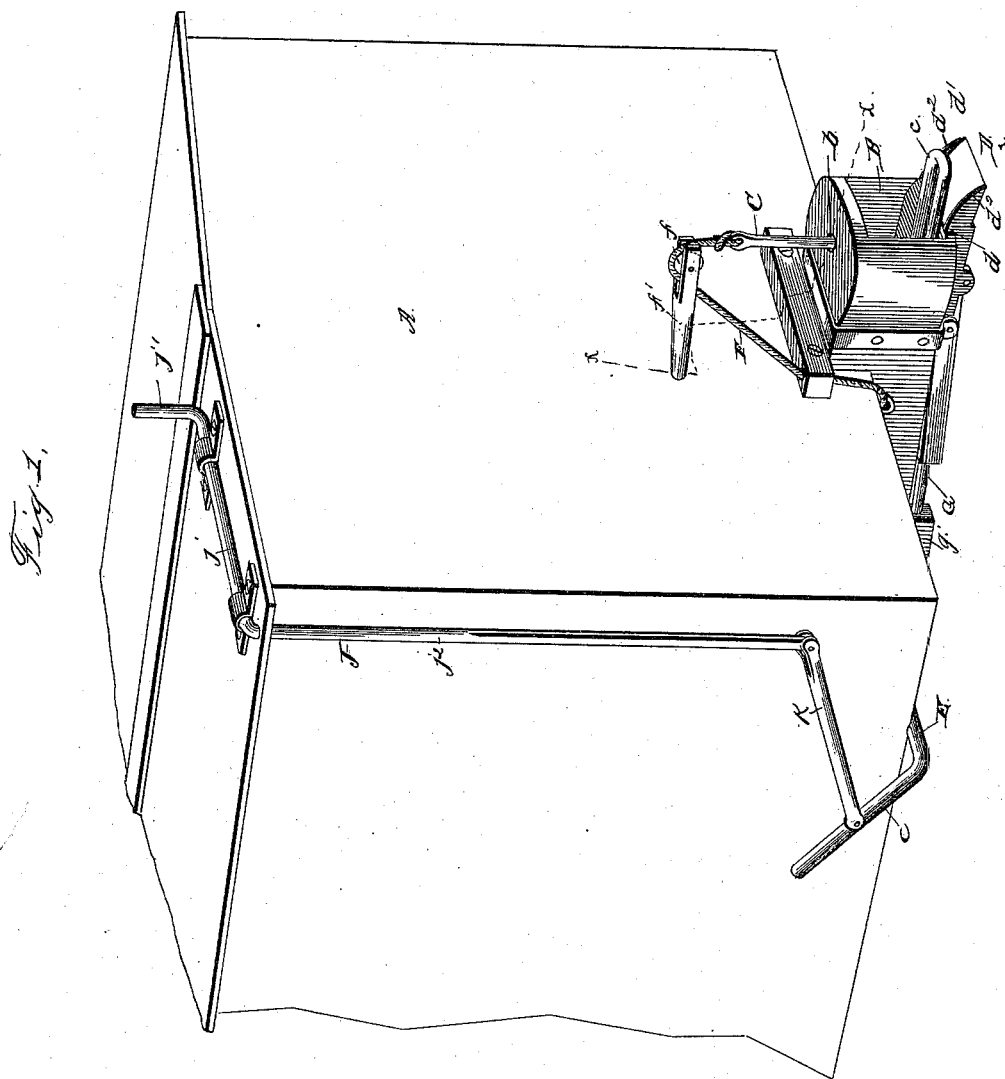
(No Model.)

2 Sheets—Sheet 1.

G. W. TOLER.  
CAR COUPLING.

No. 383,781.

Patented May 29, 1888.



Witnesses.

*Geo. H. Prope*  
*Theodore S. West.*

Inventor.

*Geo. W. Toler.*

By *his* Attorneys.

*C. H. Snow & Co.*

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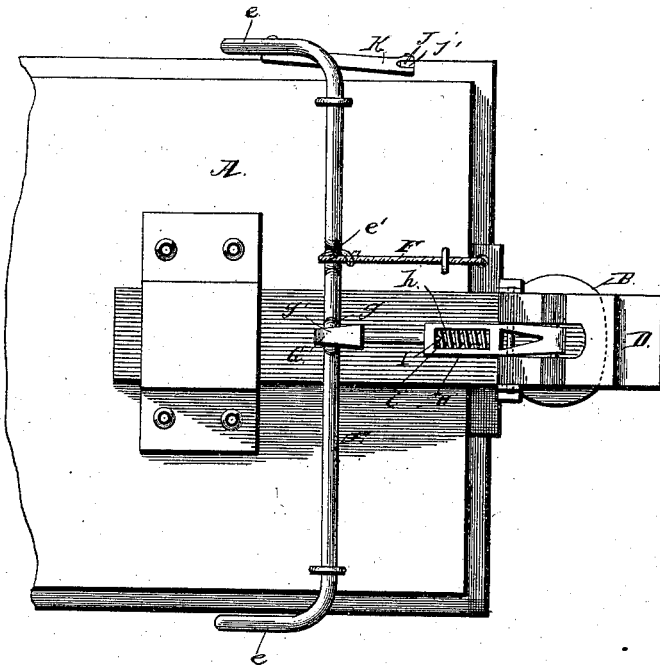


Fig. 2.

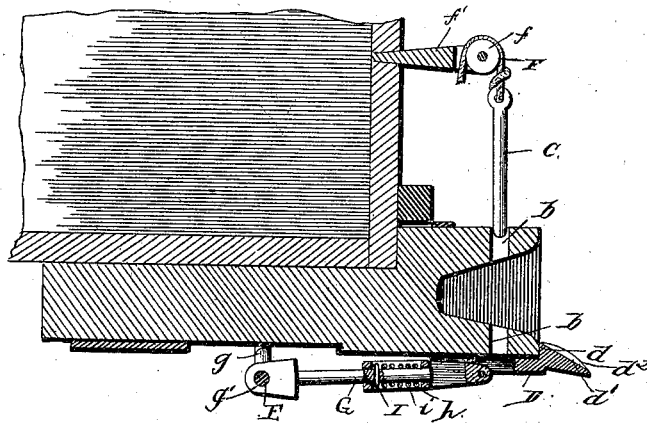


Fig. 3.

Witnesses:  
*Geo. H. Toler.*  
*Theodore S. West.*

Inventor:  
*Geo. H. Toler.*

By his Attorneys  
*C. H. Shaw & Co.*

# UNITED STATES PATENT OFFICE.

GEORGE W. TOLER, OF NEODESHA, KANSAS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 383,781, dated May 29, 1888.

Application filed February 11, 1888. Serial No. 263,678. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. TOLER, a citizen of the United States, residing at Neodesha, in the county of Wilson and State of Kansas, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

The invention relates to improvements in car-couplers of the link-and-pin variety; and it consists in the construction and novel combination of parts, hereinafter described, illustrated in the drawings, and pointed out in the appended claims.

In the drawings, Figure 1 represents a perspective view of the end portion of a car with a coupler embodying the invention attached. Fig. 2 represents a reversed plan view of the same. Fig. 3 represents a longitudinal sectional view of the coupler and attachments.

Referring to the drawings by letter, A designates a car having the hollow draw-head B attached to its end in the usual manner, which draw-head is provided with the openings *b b*, above and below for the pin C, which engages the link *c*, the said link connecting the pins of the adjacent cars.

D is a bifurcated guide-bar hinged at its inner end to the lower surface of the draw-head and having on its front end the vertical shoulder *d*, which catches against the front of the draw-head, and the inclined face *d'* running downward and outward therefrom and provided on its edge with the retaining-flanges *d''*.

E is a double-cranked shaft journaled in bearings secured to the bottom of the car, and having the handles *e e* extending up on the sides thereof.

F is a chain or cord secured at one end to the crank *e'* of the shaft E, and extending thence upward and over the pulley *f*, which is journaled upon the arm *f'*, extending from the end of the car above the draw-head. From said pulley the chain or cord F descends to the pin C, to which it is connected, the arm *f'* being of proper length and inclination to cause the chain or cord to drop vertically to the pin.

G is a pitman having its head *g'* pivoted on the crank *g* of the shaft E, and H is a link pivoted at its outer end between the legs of the

bifurcated plate-bar D, which link is provided with the longitudinal slot *h*, into which the pitman passes through an opening in the end of the link. The spindle of the pitman within the slot has passing through it a transverse pin, I, which prevents its withdrawal, and is surrounded in front of or outward from said pin with a coiled spring, *i*, which keeps the pitman and link normally extended.

By means of the handles *e e* on the shaft E and the chain or cord F the pin can be raised from the draw-head by the brakeman when standing on either side of the car, and by means of the pitman and link the pivoted plate-bar is raised simultaneously therewith, the inclined face *d'* of the said bar acting as a guide to the link about to enter the draw-head.

J is a double angled lever, the shank *j* of which is journaled in bearings secured to the top of the car, with its handle *j'* standing upward near the center of the roof.

The descending leg *j''* of the lever J has its end connected by a link-bar, K, to the up-standing handle *e* of the shaft E, so that the brakeman when on top of the car can turn said shaft so as to lift the pin and raise the guide-plate D to direct the link into the draw-head, and then by reversing the motion of the lever allow the pin to drop into the link. Thus by the described mechanism, which is simple, durable, and cheap, the cars can be coupled and uncoupled from either side or top without the brakeman going between the ends thereof. The flanges *d''* prevent the link from slipping laterally off the guide-bar.

Having described my invention, I claim—

1. In a car-coupler, the combination, with the draw-head, the pin, and the pivoted guide-bar D, having the guide-face *d'*, provided with the retaining-flanges *d''*, of the double crank-shaft journaled under the car, the pulley situated over the draw-head, the chain or cord running thereover and connecting the one crank of the shaft and pin, the pitman journaled on the other crank, the slotted link connecting the pitman and guide-bar, and the coiled spring extending normally the pitman and the link, substantially as specified.

2. In a car-coupler, the combination, with the draw-head, the pin, the crank-shaft jour-

naled under the car, the pulley, and the chain  
or cord connecting the crank-shaft and pin  
over the pulley, of the double-angled lever jour-  
naled in bearings on the roof of the car, and  
5 the link connecting the depending arm of said  
lever and the upstanding handle of the crank-  
shaft, substantially as specified.

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

GEORGE W. TOLER.

Witnesses:

REUBEN THOMES JAMES,  
ANDREW JACKSON JAMES.