(No Model.)

J. COUP.

CAR COUPLING.

No. 264,441. Patented Sept. 19, 1882.

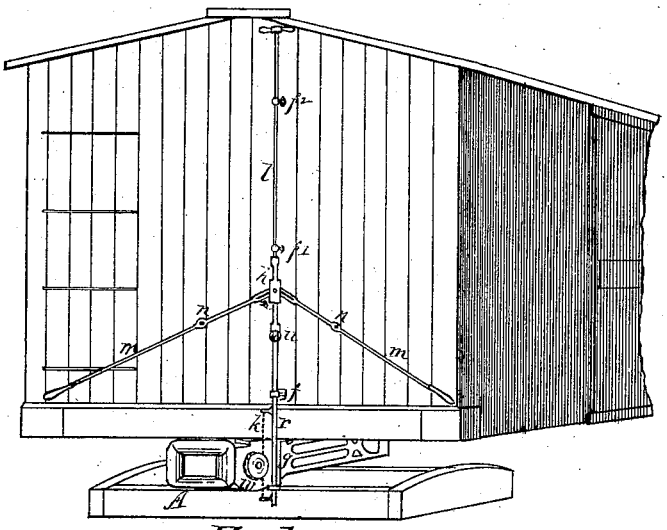

Fig. 1.

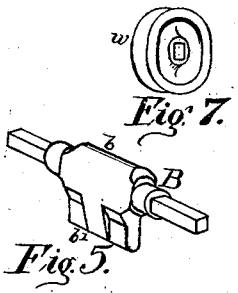

Fig. 7.

Fig. 5.

Fig. 8.

Fig. 4.

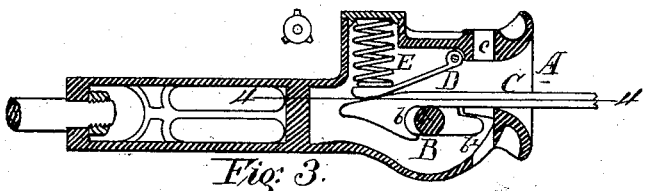

Fig. 3.

Fig. 6.

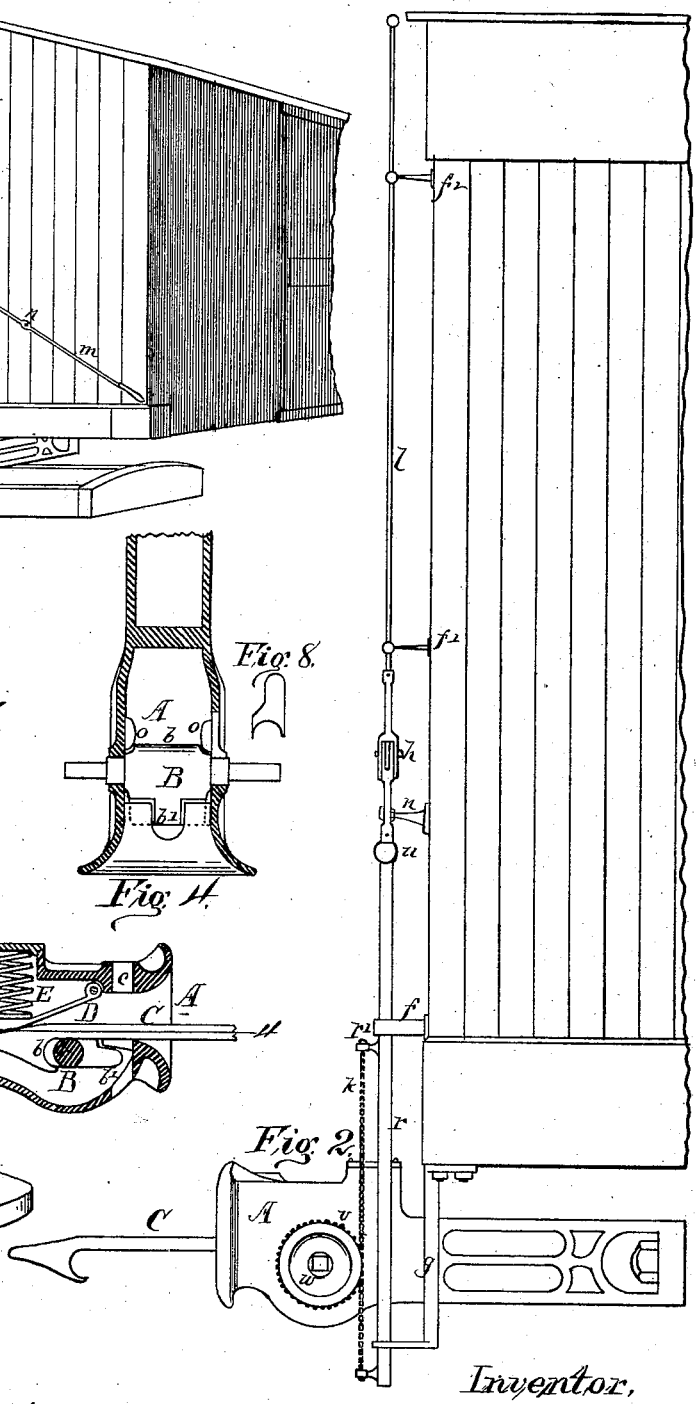

Fig. 2.

Witness,
A. J. Williams.

F. R. Tibbitts.

Inventor,
John Coup.

By Geo. W. Tibbitts Atty.

UNITED STATES PATENT OFFICE.

JOHN COUP, OF CLEVELAND, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 264,441, dated September 19, 1882.

Application filed August 4, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN COUP, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

This improvement relates to a device for operating from either side of or from the top of the car the improved car-coupling patented August 23, 1881, No. 246,131.

The nature and objects of this invention will fully appear from the subjoined description, when considered in connection with the accompanying drawings, in which—

Figure 1 is a perspective view, showing the end of a car having my improved coupler and device for operating same attached. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal section of the coupler. Fig. 4 is a longitudinal section of same on line 4 4, Fig. 3. Fig. 5 is a detached view of the rock-shaft and its key. Fig. 6 is a detached view of the coupling-hook. Fig. 7 is a detached view of grooved wheel on end of rock-shaft. Fig. 8 is a detached view of a follower-piece used to fill space in the side of draw-head, through which the said rock-shaft and its key are inserted in constructing the coupling.

A is a draw-head. B is a rock-shaft, having a rounded heel, *b*, and a pointed toe, *b'*, placed horizontally across the draw-head. C is a coupling link or hook, which engages with said rock-shaft and key in making the coupling. D is a hinged plate lying over the rock-shaft, pressed down at its swinging end by a spring, E. The elements above stated comprise the subject-matter of the invention patented the date before named.

The present invention consists of certain devices combined and arranged with the said coupling for operating the same from the top of or from either side of the car, as follows: To one end of said rock-shaft, protruding through the side of the draw-head, is attached the grooved wheel *w*, connected to mechanism for rotation designed for use in coupling and uncoupling cars having said coupler attached. To the end of the car are secured brackets *f*, *f'*, and f^2, and a hanging bracket, *g*, for supporting a vertically-sliding rod, *r*, and lever *l*. To the rod *r* is attached a chain or cord, *k*, secured in small brackets *r'* thereon, or in other suitable manner, and which passes once around said grooved wheel *w*, and is secured thereto by means of a bolt or eye, *v*, to prevent slipping. The rod *r* is made square and plays in the two brackets *f* and *g* by the side of the draw-head. To the upper end of the rod *r* is attached a rod, *l*, supported in the brackets *f'* and f^2, and reaching up to the top of the car, and is provided with a handle to be operated from the roof of the car. The said rod *l* is secured to the rod *r* by a link-coupling, *h*, consisting of two socket-pieces, secured each to the end of rods *l* and *r*, having their united ends bifurcated, so as to contain the end of two side levers, *m m*, and secured together by one bolt, thus making a working joint. The two side levers are fulcrumed to posts or brackets *n n* on the end of the car, their long arms reaching to the sides in convenient position for operation in the act of coupling or uncoupling. Suitable catch devices may be attached to the corners of the car, if desired, for supporting the outer ends of said side levers, *m m*, so constructed, however, that the pulling or pushing on the upright lever will not be prevented; or the said levers may be weighted to counterbalance the weight of the other parts of the device. At the junction of the rod *r* with the coupling *h* is interposed a rubber bulb or cushion, *u*, for the purpose of relieving the shock in the descent of said rod *r* on the bracket *f*.

The operation of this device is as follows: To couple, the hook is inserted in the draw-head, the rock-shaft being in the position seen in Figs. 2, 3, and 4, said hook standing in horizontal position ready to be inserted in an opposite draw-head of the same height or level; but, should the opposite draw-head be higher or lower, the hook may be raised or depressed at its outer end by turning the rock-shaft either to the right or left, as may be required, which, acting upon the inner end of the hook, serves to guide it into the approaching draw-head. To uncouple, the rock-shaft is rotated in the manner described in my patent of August 23, 1881, before mentioned, said rotating movement being performed in this case by bearing down on either the upright or one of the side levers for the purpose.

From the foregoing it will be seen that the work of coupling and uncoupling of cars is performed without the operator going between the cars for the purpose.

I make these couplers entirely of malleable iron. Thereby I am enabled to construct them very light and neat in appearance, and at the same time insure great strength and durability.

Having described my invention, I claim—

In a car-coupling, the combination, with the rock-shaft B, of the mechanism for rotating the same, consisting of the grooved wheel *w*, connected by cord or chain *k* with the vertical sliding rod *r*, playing in brackets *f g*, and operated by either of the levers *l m m*, connected to said rod *r* by the link-coupling *h*, for operating the coupling, substantially as described.

JOHN COUP.

Witnesses:
GEO. W. TIBBITTS,
E. W. LAIRD