(Model.)

A. C. RODGERS.

CAR COUPLING.

No. 246,638. Patented Sept. 6, 1881.

Fig. 1,

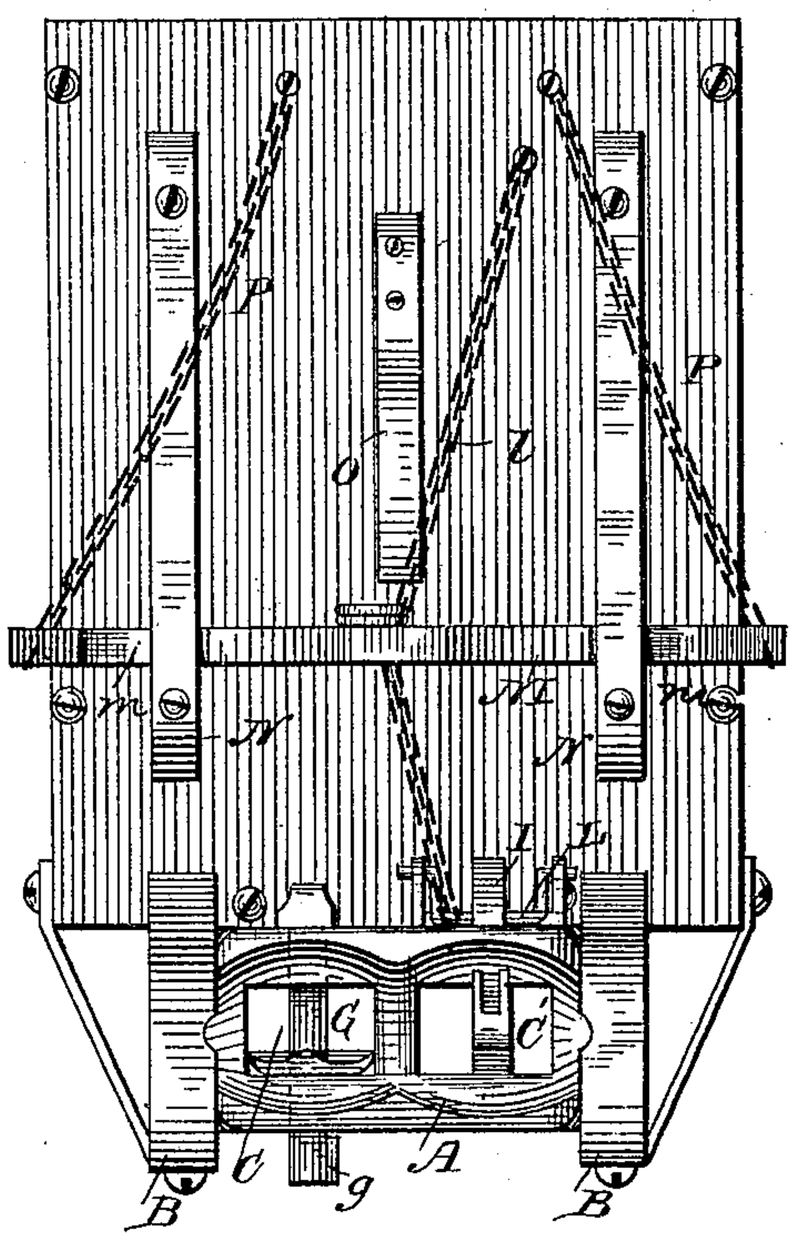


Fig. 2,

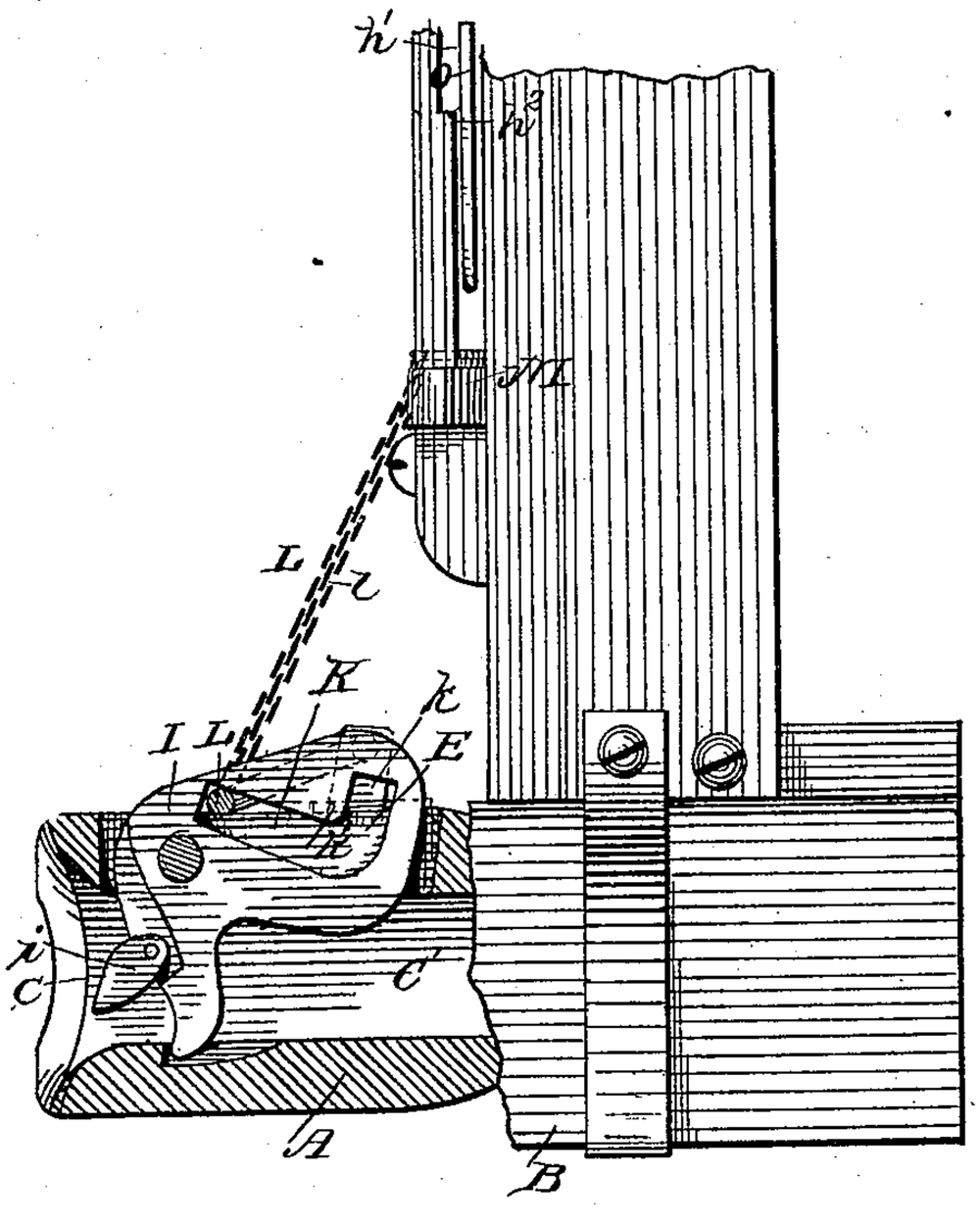


Fig. 3,

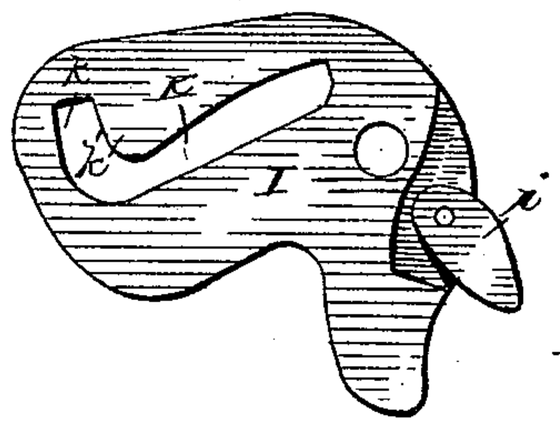


Fig. 4,

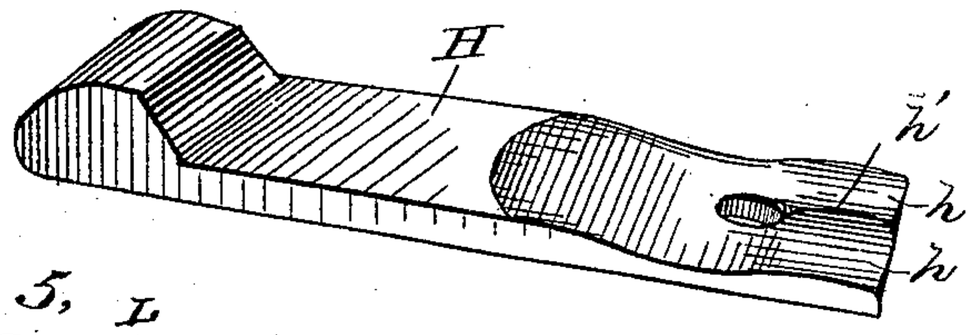
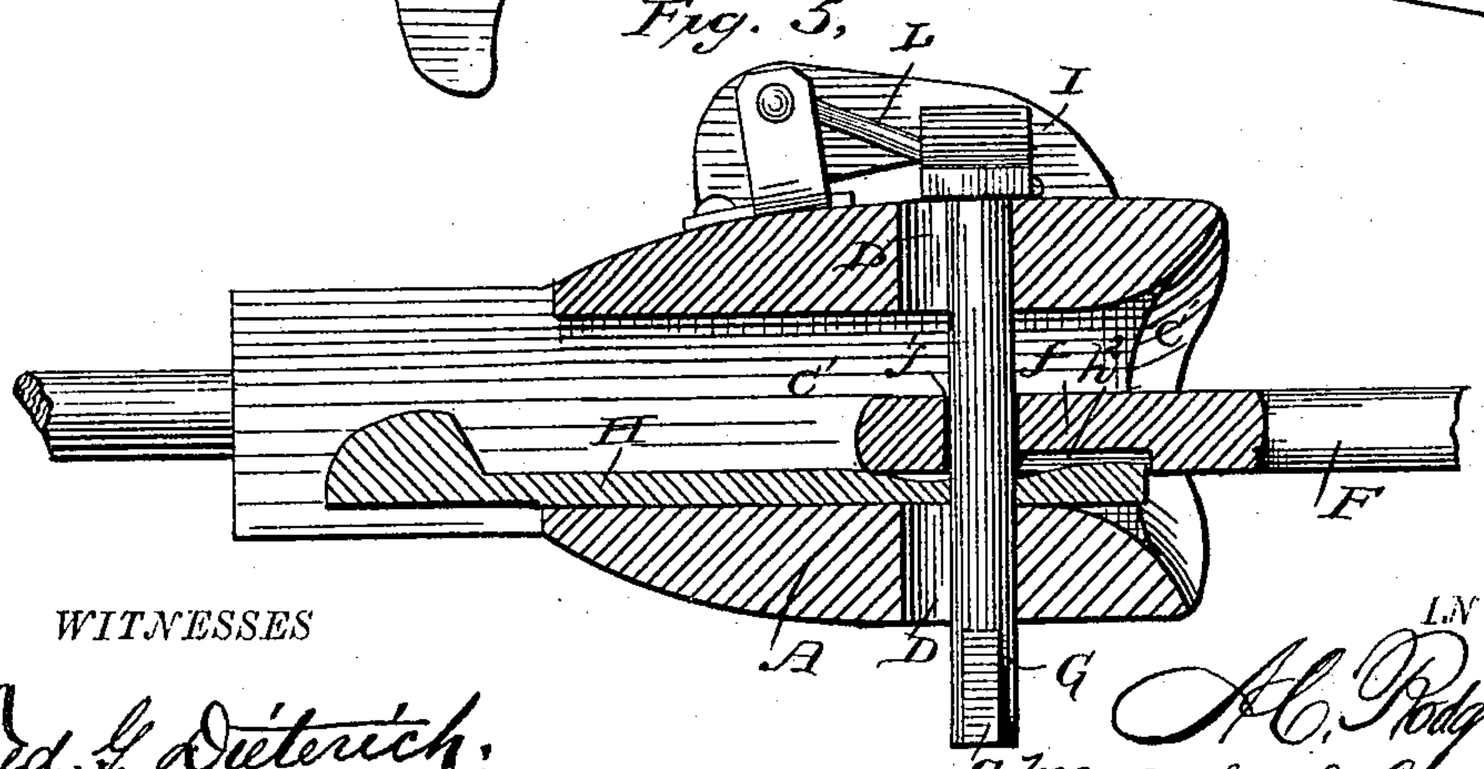


Fig. 5,



WITNESSES

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 246,638, dated September 6, 1881.

Application filed July 22, 1881. (Model.)

To all whom it may concern:

Be it known that I, AMOS C. RODGERS, of Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to a car-coupling which can be operated from either the top or sides of the car, and thereby avoid the necessity of the operator passing between two cars.

The improvement consists in the features of construction and combination hereinafter described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a front elevation. Fig. 2 is a side view of the curved slotted link, the bail, and the chain connected therewith, the draw-head being shown in section. Fig. 3 represents one of the links; and Fig. 4 represents, in perspective, a wedge-block that is inserted under a link in one of the recesses of the draw-head. Fig. 5 is a section through the link, wedge-block, draw-head, and pin.

The letter A indicates the draw-head, which is provided with the usual draw-bar and arranged to slide to the required extent between the sills B of the car. The draw-head is formed with two link-receiving recesses, C C′, which are separated by a central partition, the top and bottom walls of the recess C having a key-hole slot, D, formed through them, and the top wall of the recess C′ having an elongated slot, E, made through it, the purposes of which will now be described. The link F, which is received into the first-mentioned recess, has one of its ends closed or made solid, as at *f*, and is provided at such end with a hole, *f′*, through which the coupling-pin G passes. This pin has a stud, *g*, on its end, which said stud is sufficiently small to pass through the contracted portion of the key-hole slots D, whereby, after passing the pin through the said slots and the link, it can be locked by simply turning it so as to bring its stud under the solid portion of the draw-head. The pin also passes through a wedge-block, H, that is arranged between the link and the bottom of the recess, said block being formed with an incline at its forward end and with the grooves *h* corresponding to the sides of the link. These grooves tend to keep the link in line with the coupling, and the rib *h′* between these grooves will be received in a recess, h^2, that is formed with inclined walls and arranged in the under side of the link, so that any backward movement on the part of the latter will raise it by reason of the said rib acting in the recess h^2.

I indicates the curved coupling-pin, which is pivoted in the slot E of the draw-head, a smaller pin, *i*, being pivoted to the said curved pin at a point below the slot. This small pin is formed at its upper end with a recess, in which the curved front edge of the pin I is received, the pivot passing the walls of said recess and through the larger curved pin. The pivoted coupling-pin I is provided above its pivotal point with a slot, K, which is tangential to its pivot and formed with a lateral recess, *k*, at its upper end, so as to provide a shoulder, *k′*, against which the bail L will rest when the pin is raised. The swinging bail L passes through the slot of the coupling-pin and has its ends arranged in suitable bearings on the draw-head. A chain, *l*, which is connected with the bail, passes up through a movable bar, M, that is arranged in front of the car, said chain being connected to the car at its upper end. By drawing upon this chain the pin will be raised, and by slackening the same the pin will be allowed to drop or turn down, so that its lower end within the draw-head will engage the link.

The bar M, which is arranged to be raised or lowered, is formed with recesses *m m* near its ends, said recesses receiving the vertical guide-bars N, that are secured to the end of the car. These vertical bars are each formed with a recess, *n*, extending nearly the entire length of the bar on its under or inner side, so that the bar M can move between the said horizontal bars and the end of the car. The vertical bars have also the short recesses *n′* formed in their inner sides at points near their upper ends, whereby the shoulders n^2 will be

formed for the horizontal cross-bar M to rest upon when either end of said bar has been elevated. In order to force the bar M into these upper recesses I secure a flat spring, O, to the end of the car in such position that it will bear outwardly against the bar when the latter is elevated. To one end of this bar is attached a chain, P, which is carried to the top of the car, so that the bar can be raised from such point. When the bar M is at the lowest ends of the long recesses or spaces between the vertical bars and the end of the car the lower end of the curved coupling-pin will be depressed and the upper end thereof lie in part within the slot of the draw-head. When in this position the bail will be at the forward end of the slot in the said coupling-pin. If, now, the link enters the draw-head it will strike the lower ends of the pins and raise the same so as to be engaged thereby after it has passed the point of the larger pin. To uncouple, the bail can be raised either by drawing upon the chain which passes through the bar M or by raising either end of said bar, which latter movement can be effected from the side of the car or from the top thereof. The shoulders on the inner sides of the vertical bars will hold the bar M up until it is pressed back against the spring and lowered.

What I claim is—

1. The combination, with the draw-head having the slots E, of the link and the coupling-pin G, provided with a stud, *g*, at one end, substantially as described.

2. The combination, with the draw-head, of the link having a recess in its under side, of the coupling-pin G, and the wedge-block H, formed with an incline and two grooves at its forward end, substantially as described.

3. The combination, with the draw-head, of the slotted coupling-pin I, having a lateral recess at the upper end of its slot, and the swinging bail passing through said slot and connected with a chain arranged for raising the bail, substantially as described.

4. The combination, with the slotted draw-head, of the pivoted and slotted coupling-pin I, the swinging bail passing through the slot of said pin, the movable bar M, supported by guide-bars on the end of the car, and the chain passing from the bail to the said movable bar, substantially as described.

5. The combination, with the draw-head, of the slotted coupling-pin I, the swinging bail for raising the same, the chain *l*, connected with the bail, the movable bar M, arranged to work between the vertical guide-bars and the end of the car, and the spring O, adapted to press outwardly against the movable bar, substantially as specified.

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

AMOS CHARLES RODGERS.

Witnesses:
JAMES S. GREEN,
ALFRED A. HAY.