No Model.)

D. WITT.

CAR COUPLING.

No. 268,163. Patented Nov. 28, 1882.

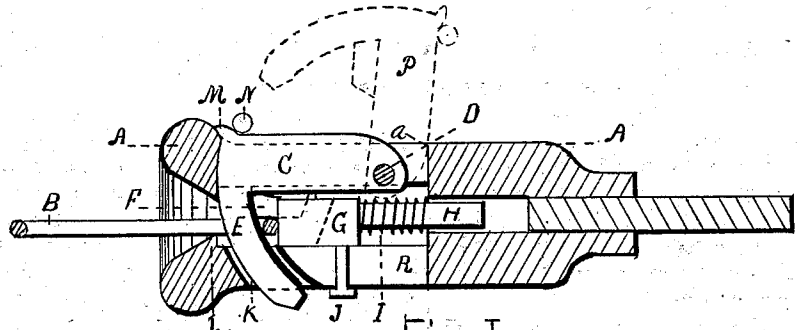


FIG. 1.

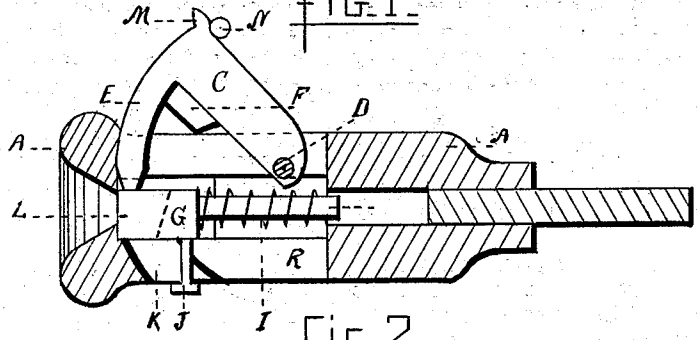


FIG. 2.

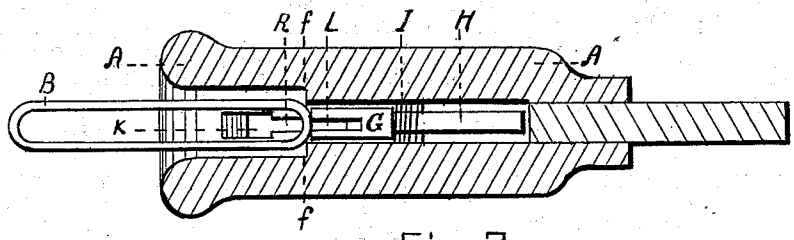


FIG. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

DANIEL WITT, OF TEMPLETON, ASSIGNOR OF ONE-HALF TO ANDREW M. HOLMAN, OF BALDWINSVILLE, MASSACHUSETTS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 268,163, dated November 28, 1882.

Application filed February 27, 1882. (No model.)

To all whom it may concern:

Be it known that I, DANIEL WITT, a citizen of the United States, residing at Templeton, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention relates to the construction and arrangement of the several operating parts with the draw-bar of a railway-car, and is fully set forth and described in the annexed specification, reference being had to the accompanying drawings, in which—

Figures 1 and 2 show a vertical section, and Fig. 3 a horizontal section, of a draw-bar embodying my invention.

Similar letters refer to similar parts in the several views.

A A represent a draw-bar of the usual form, having a flaring mouth to receive the end of the entering link and an inner chamber or recess, and may be attached to the car in any suitable manner. In a slot between the inner chamber and the upper face I place the metallic latch C, turning upon the pivots D, properly journaled in the draw-bar. The latch is formed of the bar C and hook E, whose curvature is concentric with the pivot D. In the inclosed angle I place the blade F, projecting downward from the bar C to rest upon the inner end of the link B and by the weight of the latch hold the link in a horizontal position to enable it to enter readily the draw-bar of an approaching car. The lower end of the hook E passes through the aperture K in the lower face of the draw-bar, securely holding the link, as shown in Fig. 1. The slot in the upper face is carried back sufficiently to allow the latch, when raised, to fall back slightly past a vertical position and rest its upper edge against the draw-bar at *a*, as shown at P in Fig. 1, but in such a position that a jar caused by the impact of an approaching car will cause the latch to be thrown down. By this arrangement of the latch and draw-bar I am able to uncouple two cars, even when the link is not removed by the separation of the cars, which is necessary when the operation of "flying" a car is performed, which is accomplished by the use of my device, as follows: Suppose a moving train to be "broken in two" when at a considerable distance ahead of a switch, the forward portion moving ahead of the rear portion of the train. The forward car of the rear section of the train is then uncoupled by a brakeman at the top by raising the latch C into the position shown at P, Fig. 1. The brakes are applied to the rear cars, checking but not entirely stopping their motion. The uncoupled forward car, moving faster than the rear of the train, soon becomes isolated. After the forward section of the train has passed the switch on the main track the switch-tender "throws" the switch so as to run the isolated car onto the side track, and the switch is again replaced so the rear portion of the train shall follow the forward section on the main track. If the forward portion is then stopped while the rear portion is still in motion, the two will come together, the link on the rear of the hindermost car of the forward section entering the draw-bar of the advancing car, pushing in the thrust-bar E, and the concussion of the two striking draw-bars causing the latch C to fall and engage the link, thus coupling the two cars together automatically. But in case the jar of the moving car in passing the switch or inequalities of the track has caused the latch C to fall, or if the concussion of the striking draw-bars causes the latch to be thrown down when no link has entered the approaching draw-bar, the hook E will be received and held on the upper side of the bar G, as shown in Fig. 2, preventing it from falling into the position Fig. 1, which would prevent a link from entering at all.

In the inner chamber of the draw-bar I place the sliding bar G, having the spindle H inclosed by the spiral spring I, which pressing against the projecting sides of the chamber, pushes the bar G forward, the end resting against the link when the cars are coupled, Fig. 1, and when the latch is raised sliding forward, ejecting the link from the draw-bar and forming a support for the hook E when in the position shown in Fig. 2. The sliding bar G has a pin, J, projecting downward from its under side, and sliding in the slot R in the lower face of the draw-bar, serving as a guide to the bar G. The forward end of the bar G is mortised at L to receive the blade F, permitting it to pass through the

center of the bar G and rest upon the inner end of the link B, holding it in a horizontal position by the weight of the latch, the edge *b* of the draw-bar acting as a fulcrum. The projection M upon the forward end of the latch, resting upon the upper face of the draw-bar, prevents the latch from falling too low. A chain and rod attached to the ring N and carried to the roof of the car will enable the latch to be operated from the top of the car; or any suitable arrangement of levers or rods reaching to the sides of the car—such as are used with the various forms of self-coupling draw-bars—may be used with the above construction, thereby entirely obviating the necessity of entering between the cars for the purpose of coupling or uncoupling.

The inner chamber of the draw-bar is shown in horizontal section in Fig. 3, the rear end being contracted to secure the bar G, and of a less diameter than the width of the link, so that the shoulders *f f* will receive the blow of the entering link, thereby preserving the end of the bar G from being bruised.

I am aware that a sliding bar actuated by a spring has been used to support a coupling-pin; and I am also aware that a latch to hold a link and also to support it by the weight of the latch has been before used in various forms. Therefore I do not claim these features, broadly. Neither do I claim broadly a sliding bar, in combination with a swinging hook or latch, for the purpose of supporting the hook and preventing it from falling into place, as this construction has been before used; but

What I do claim, and desire to secure by Letters Patent, is—

1. A draw-bar, A, having a latch, C, with a concentrically-curved hook, E, and pivoted at its rear end within a slot of the draw-bar, so it will rest against the draw-bar at *a* when raised, and maintain itself in an upright position, capable of being thrown down by the impact of an approaching car, in combination with a sliding thrust-bar, G, actuated by a spring, I, said thrust-bar forming at the end a support for the hook E when the hook is thrown down, as described, and for the purpose specified.

2. The combination, in a draw-bar, of a vertically-swinging latch pivoted at its rear end, and having a projecting plate or blade, F, adapted to rest upon the inner end of the link B, with a horizontally-sliding thrust-bar, G, having a mortised end, L, to receive the plate F, as described, and for the purposes set forth.

3. The combination, in a draw-bar, of the latch C, having the blade F, with the sliding bar G, having the mortise L and guiding-pin J, as described, and for the purposes set forth.

DANIEL WITT.

Witnesses:
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