J. R. LAMB.

CAR-COUPLINGS.

No. 195,290. Patented Sept. 18, 1877.

Fig. 1.

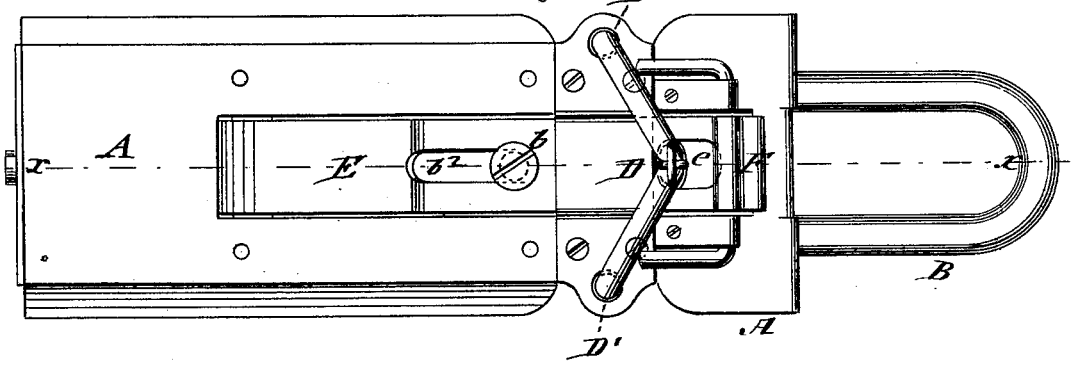


Fig. 2.

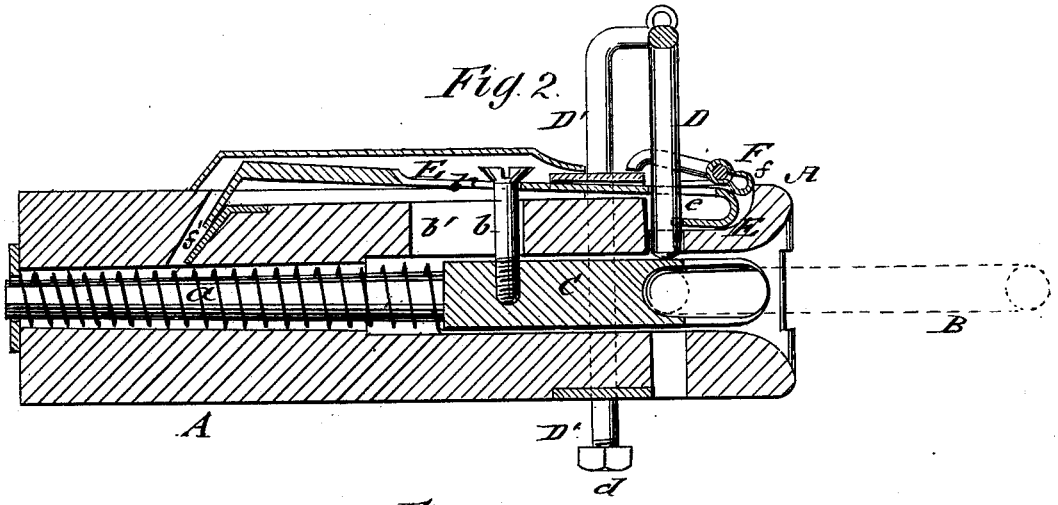
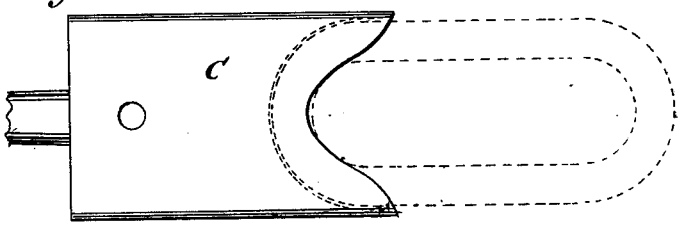


Fig. 3.



WITNESSES:

E. Wolff.

J. H. Scarborough.

INVENTOR:

J. R. Lamb.

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES R. LAMB, OF ST. JAMES, MINNESOTA.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **195,290**, dated September 18, 1877; application filed June 4, 1877.

To all whom it may concern:

Be it known that I, JAMES R. LAMB, of St. James, county of Watonwan and State of Minnesota, have invented a new and useful Improvement in Car-Coupling, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view; Fig. 2, a vertical longitudinal section on line *x x*, Fig. 1, of my improved car-coupling; and Fig. 3 is a top view of the link-holding follower.

Similar letters of reference indicate corresponding parts.

The invention refers to that class of car-couplings that may be coupled without danger automatically, the link being held in a horizontal position for entering the approaching draw-head, and the pin dropped on the entrance of the link.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

In the drawing, A represents a draw-head of the customary shape, with curved or tapering mouth, being attached to the car-frame and cushioned in any suitable manner. B is a common coupling-link, and C a sliding follower, with larger front part, having curved and concaved head and guided stem, around which a spiral spring, *a*, of suitable power, is arranged, which is interposed between a rear plate or shoulder of the draw-head and the larger front part of follower. The follower C is guided in its forward-and-backward motion by a pin, *b*, sliding in a slot, b^1, of the draw-head, the front part of the follower bearing against a shoulder of the draw-head when carried too far back into the same. The coupling-pin D drops in the usual pin-holes, being guided by symmetrical rods D′, that are attached to the upper end of the pin, and moved in top and bottom guide-holes of a lateral strap of the draw-head. The pin D is prevented from being detached from the draw-head by means of nuts *d* at the lower end of guide-rods D′.

The pin D is raised for uncoupling in any suitable manner, either by cord, chain, or rod attached to the top ring of the same, or by hand in the case of platform-cars. The coupling-pin D passes through a slot, *e*, of a top slide-piece, E, which, by reason of its peculiar shape, being curved under at its front end and bent down at an angle at its rear end, falls into place under the pin whenever the pin is lifted out of link, and while the follower is still held back by link, so as to support the pin until the link is drawn out. The slide-piece E rests in a concaved front recess, *f*, of the draw-head, and slides in an inclined slot, *f′*, at the rear part of the same, the rear portion of the slide-piece being made heavier, to secure, in connection with the slot, the drop-motion of the slide, and give thereby, by the curved front end, a support for the pin until the follower is driven forward by its spring, and the pin *b* that passes up through a slot, b^2, of the slide-piece engages the same and carries it forward, so as to drop the pin on the top of the follower, ready for coupling whenever required. The entering of the link pushes the follower back and drops the pin, so as to couple thereby the cars. The follower presses on the link and forces it against the pin, holding the link by the curved and concaved top part in horizontal position for coupling, so as to readily enter the mouth of the draw-head to be coupled. The follower gives the link the necessary play, so as to work free in the draw-head when coupled.

To the top part of the draw-head A, above the curved front end of the slide E, is hinged a lock, F, that is operated by side handles, so as to be thrown in between the curved end and the end of the concaved top recess of the draw-head when the pin has been raised above the curved end. The pin is thereby supported stationary in the curved end of the slide-piece without being released by the forward motion of the follower, so as to allow the backing of a lot of loose cars on side track, or other operations in which cars are not required to be coupled. The spring of the hinges retains the handles in upright position, and also facilitates the throwing down of the same, so as to admit the regular use of the drop-pin. The weight of the handles prevents the lock from working by the motion of the cars. The slide-piece is preferably covered by a cap-piece against the entrance of rain or snow to the working parts.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

The combination, in a car-coupling, with pin D, of the end-curved slide E and lock-lever F, arranged and operating as shown and described, the former being caused to press with so much force against the pin while in the link that it cannot be displaced.

JAMES R. LAMB.

Witnesses:
J. W. SEAGER,
NILS OLSON.