(No Model.)

F. J. PAPINEAU, Jr.

CAR COUPLING.

No. 333,025. Patented Dec. 22, 1885.

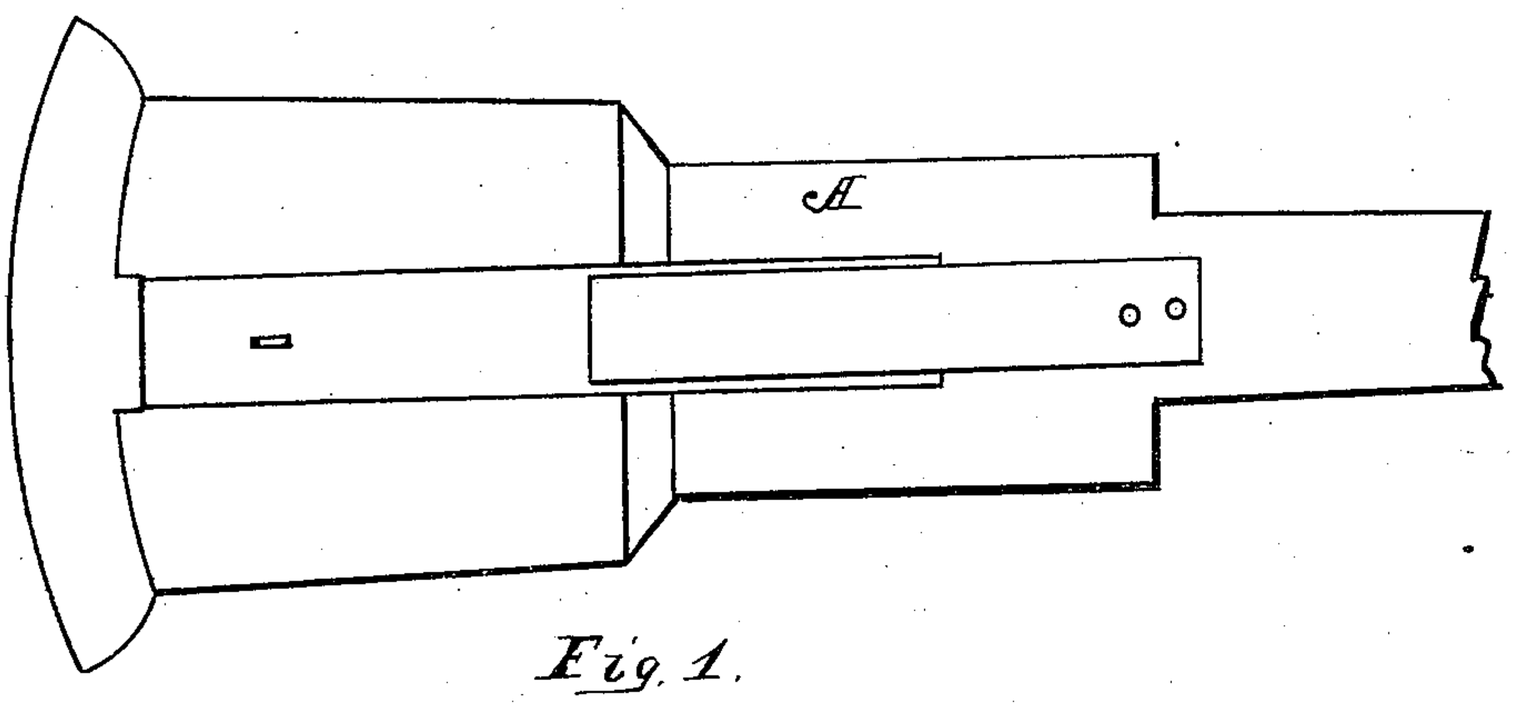

Fig. 1.

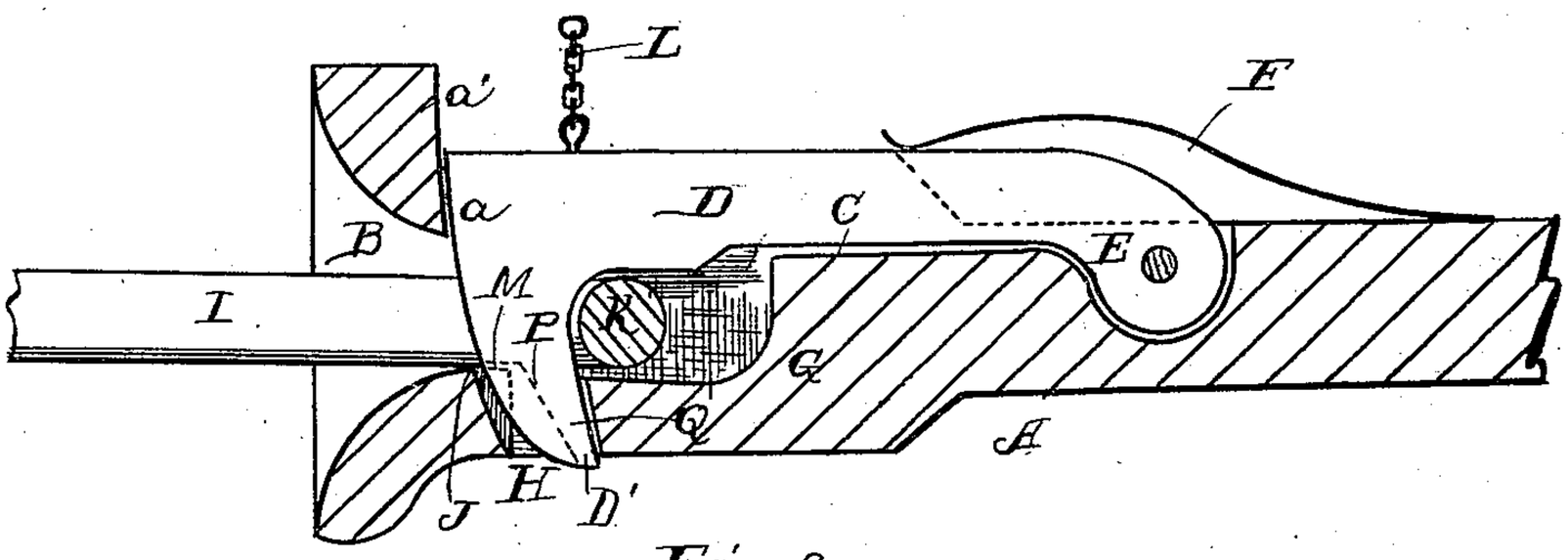

Fig. 2.

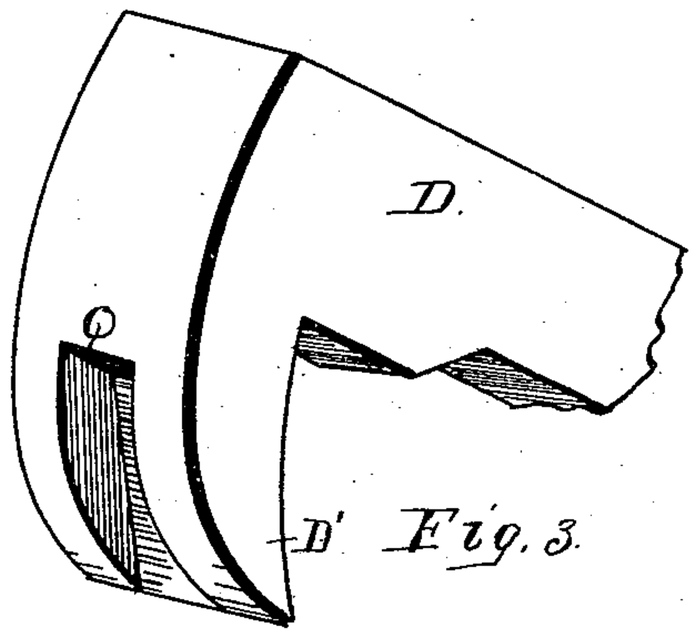

Fig. 3.

WITNESSES:

Robert Kirk

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UNITED STATES PATENT OFFICE.

FRANK J. PAPINEAU, JR., OF NEW ORLEANS, LOUISIANA, ASSIGNOR OF ONE-HALF TO EMILE C. CANNING, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 333,025, dated December 22, 1885.

Application filed April 13, 1885. Renewed November 16, 1885. Serial No. 183,046. (No model.)

To all whom it may concern:

Be it known that I, FRANK J. PAPINEAU, Jr., of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Improvement in Car-Couplers, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a top view of my improved car-coupler. Fig. 2 is a central vertical longitudinal section; and Fig. 3 is an enlarged perspective view of the forward end of the hook-bar.

The object of my invention is to provide a coupler capable of being automatically coupled, and is of the order known as the "hooked-bar couplers."

In addition to the quality of automatically coupling the mouth of the draw-bar is arranged with its inner end inclined, and the hooked bar is so weighted and hinged that it rests on the arc of the link, thereby enabling the brakeman to elevate or lower the projecting end of the link by the same lever with which the link is uncoupled.

To provide for re-enforcing or strengthening the point of the hook when it is partially elevated, the lower wall of the draw-bar mouth is provided with a rearwardly-projecting point or nib in the aperture through which the hook passes, and the forward face of the hook has a groove or detent in which the nib rests, all of which will now be set forth in detail.

In the accompanying drawings, A represents a draw-bar, and B the mouth. The draw-bar has in its upper wall a longitudinal groove, C, to receive therein the hooked bar D. The rear end of this bar is curved downwardly, and is hinged to the draw-bar by means of the horizontal cross-pin E. A spring, F, with its rear end secured to the draw-bar back of the hinged bar D, has its forward end projecting forwardly and resting on the bar D to the front of its pivotal point. I do not deem this spring an essential feature of the invention, but its use may prevent the bar from being thrown out by the concussion of the cars. A heavily-weighted hook-bar may serve the same purpose. This mouth of the draw-bar is made preferably the same size and shape as in the ordinary draw-bar; but in this invention I depress the rear end of the floor G, and form an aperture, H, through the lower wall to receive the hook D′ of the bar D. The link I when placed in the mouth of the draw-bar is fulcrumed at J directly in front of the hook D′, and as the body of the bar D rests upon the arc K of the link, the outer end of the link can be elevated or lowered by means of levers (not shown) which connect with the chain L on the bar. Thus, if it is desired to depress the projecting end of the link, the chain L raises the hook-bar D, and if the link is to be raised the brakeman permits the entire weight of the hook-bar to rest upon the arc K of the link, so that the link will project from the mouth at the same angle of inclination as the floor G of the mouth. The front face of the aperture H has a rearwardly-projecting nib, M, and the forward face N of the hook D′ has a groove or detent into which the nib M is designed to enter.

It will be observed that the floor P of the groove O is the same arc as the inner face, Q, of the hook, so that should the hook be elevated the nib will rest against the floor of the detent and re-enforce the hook. The groove O does not interfere with the operation of the link, but should it be considered inadvisable to place the groove in the front face, it is obvious that a groove could be put in each side of the hook, and lugs could rest in said grooves from the sides to subserve the same purposes.

It will be observed by reference to Fig. 2 that the end of the coupling-hook D is curved at *a*, and that the back of the head of the draw-bar is formed with a curve, *a′*, nearly corresponding to the arc *a*, consequently when the link I is coupled the drawing strain on the hook D′ and its bar and pin E will be resisted by the head of the draw-bar.

What I claim as new is—

1. In a car-coupler, a hooked coupling-bar pivoted in a recess formed in the top of the draw-bar and constructed with a hook having a curved front end, in combination with a curved abutment at the back of the head of the draw-bar terminating in an aperture, H,

a backwardly-inclined floor, and a fulcrum-bearing, J, for a coupling-link, substantially as and for the purposes described.

2. The combination of a draw-bar having a curve, *a'*, at the back of its head, a backwardly-inclined floor, an aperture through the latter provided with a nib, M, and a fulcrum-point, J, with a coupling-hook having a groove in its front curved end to receive said nib, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand, this 25th day of March, 1885, in the presence of witnesses.

FRANK J. PAPINEAU, JR.

Witnesses:
J. S. ZERBE,
EMILE C. JEUNESSE.