

(No Model.)

W. E. SAMUEL.
CAR COUPLING.

No. 327,197.

Patented Sept. 29, 1885.

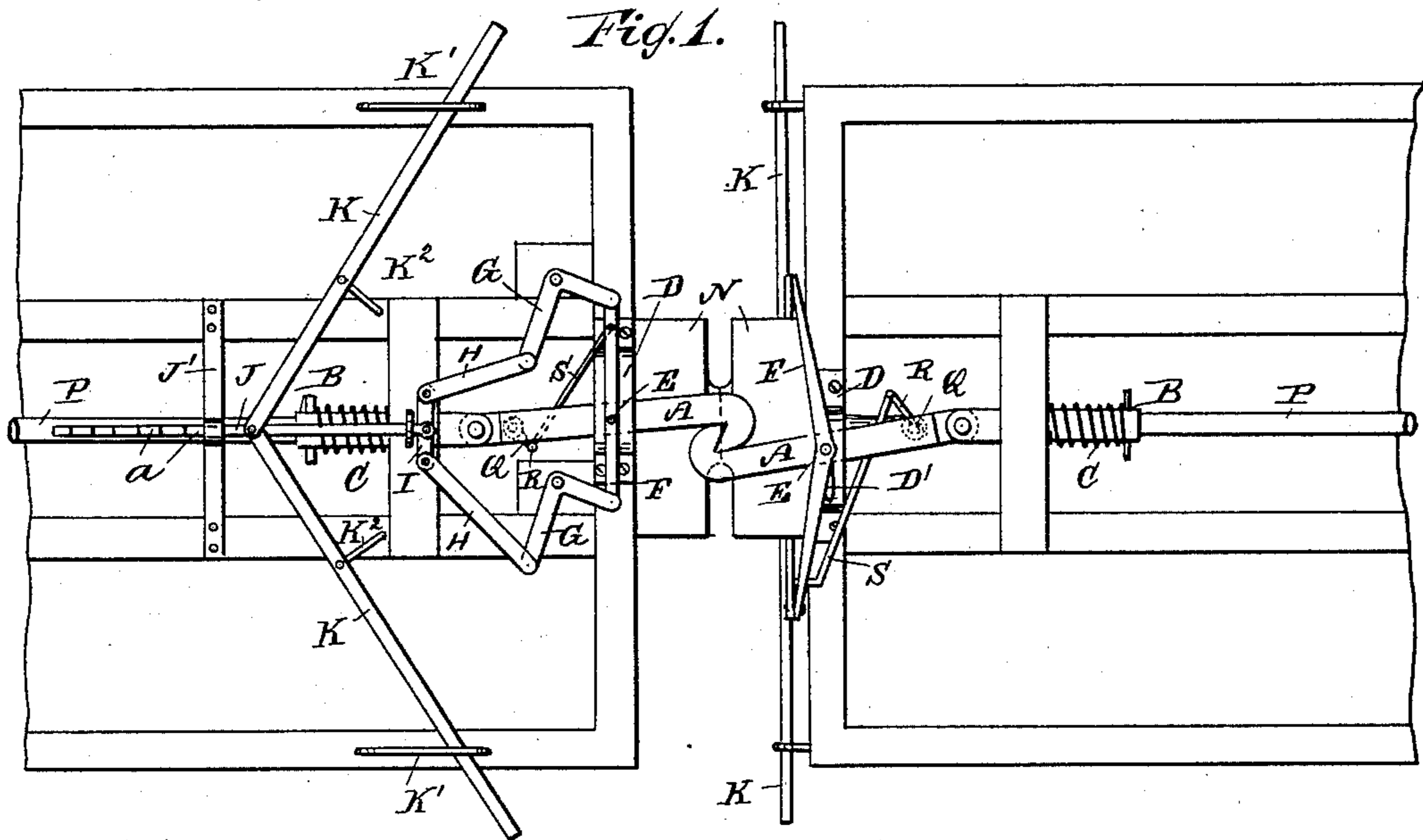
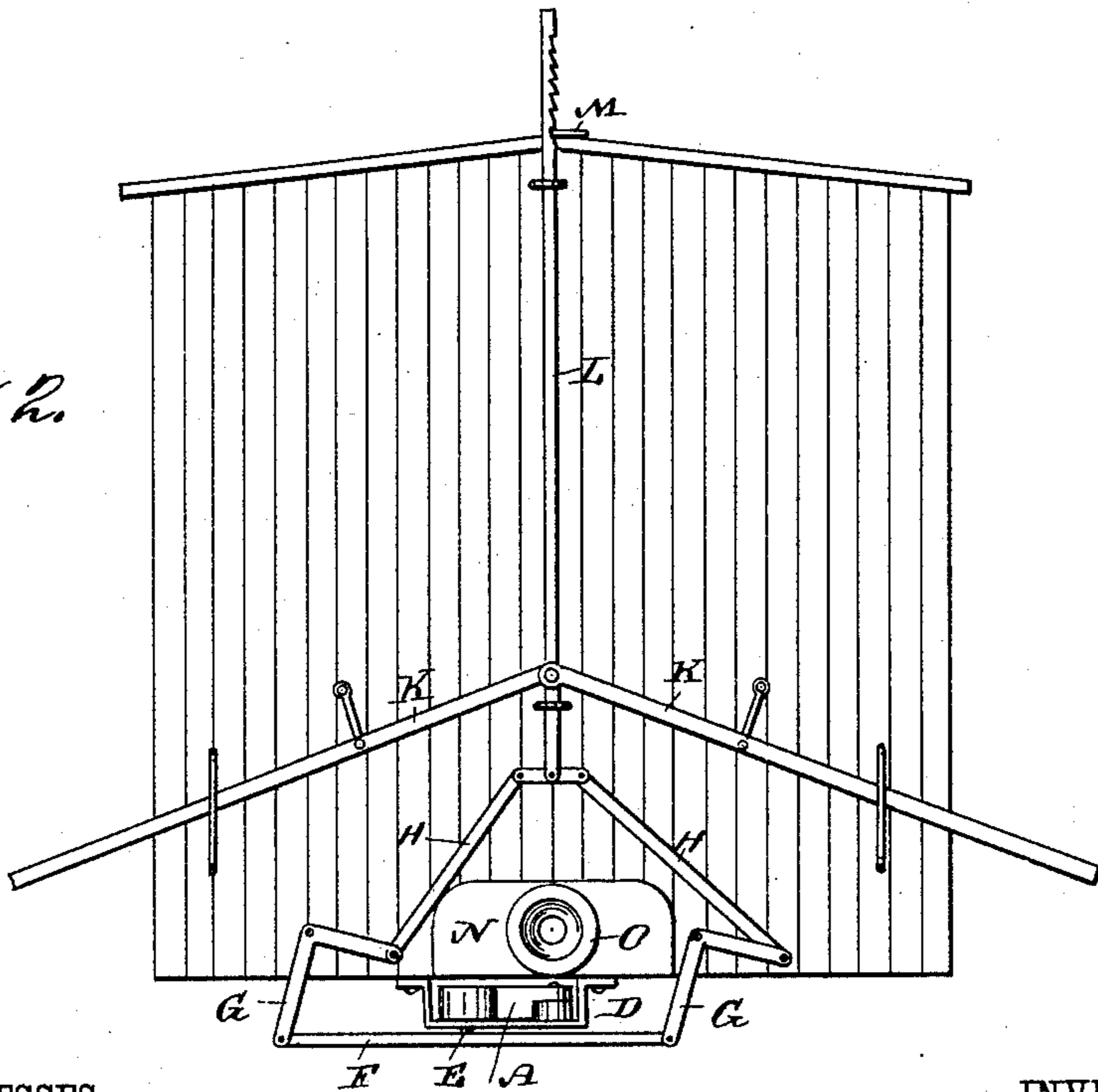


Fig. 2.



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WILLIAM E. SAMUEL, OF FAIRFIELD, NEBRASKA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 327,197, dated September 29, 1885.

Application filed November 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. SAMUEL, of Fairfield, in the county of Clay and State of Nebraska, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved car-coupling with which an automatically-operating cock for the steam or air-brake pipes is connected.

The invention consists in the construction and arrangement of parts, as will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a plan view of the under side of the end parts of two cars provided with my improved coupling device. Fig. 2 is an end view of a box-car provided with my improved coupling device.

The horizontally and laterally swinging coupling-hook A is pivoted at its inner end to a longitudinally-sliding bar, B, on the bottom of the car, the said bar being surrounded by a spiral buffer-spring, C.

The hook A rests and swings upon a guard or guide cleat, D, secured transversely on the under side of the car and provided with a longitudinal slot, D', through which a pin, E, passes, that projects downward from the swinging coupling-hook A, and is secured to a bar, F, below the guide-cleat D and parallel with the end of the car.

The ends of the bar F are pivoted to elbow-levers G, pivoted on the bottom of the car, as shown on the left-hand side of Fig. 1, and the other ends of the elbow-levers G are connected by connecting-bars H with a cross-bar, I, on the front end of a longitudinally-sliding bar, J, having teeth a on its under side, and passing through a frame, J', on which the teeth can catch.

Levers K are pivoted on the bar J, and extend to and project from the sides of the car, and also pass through guide-cleats K'. The said levers K are pivoted on swinging levers K² on the under side of the car.

If desired, the elbow-levers G may be pivoted on the end of the car, as shown in Fig.

2 and on the right-hand side of Fig. 1, the bars H connecting the said levers with a cross-piece on a vertically-sliding rod, L, on the end of the car, which rod is provided at its upper end with teeth adapted to engage with a plate, M, projecting from the end of the car.

The levers K are pivoted on the end of the car and extend to the sides.

The buffers N are each provided on the outer end surface with a projecting tubular rubber head, O, or buffer, with which the steam or air brake tubes P, held longitudinally on the bottom of the car, are connected.

Each tube P is provided at each end with a cock, Q, having a handle-lever, R, connected by a connecting-rod, S, with the corresponding bar, F.

The operation is as follows: When the cars come together, the hooks A are swung toward each other by means of the levers K, thus causing the said hooks to engage. When the cars are to be uncoupled, two hooks, A, are swung from each other by means of the levers K. When the hooks A are swung toward each other, they move the bars F in such a manner that the cocks Q of the pipes P are automatically opened, and when the hooks A are swung from each other the bars F are moved on the inverse direction and close the pipes automatically. When the cars are coupled, and the speed of the locomotive is checked suddenly, the bumpers or buffers come together, and the rubber heads O are pressed firmly together and form close joints, whereby the tubes P of the several cars are connected for a sufficient length of time to apply the steam or air brakes.

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

The combination, with a car, of the guide-cleat D, the swinging coupling-hook A, the bar F, the angle-levers G, a sliding bar connected with the angle-levers, and levers extending from the sliding bar to the sides of the car, substantially as herein shown and described.

WILLIAM E. SAMUEL.

Witnesses:

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