

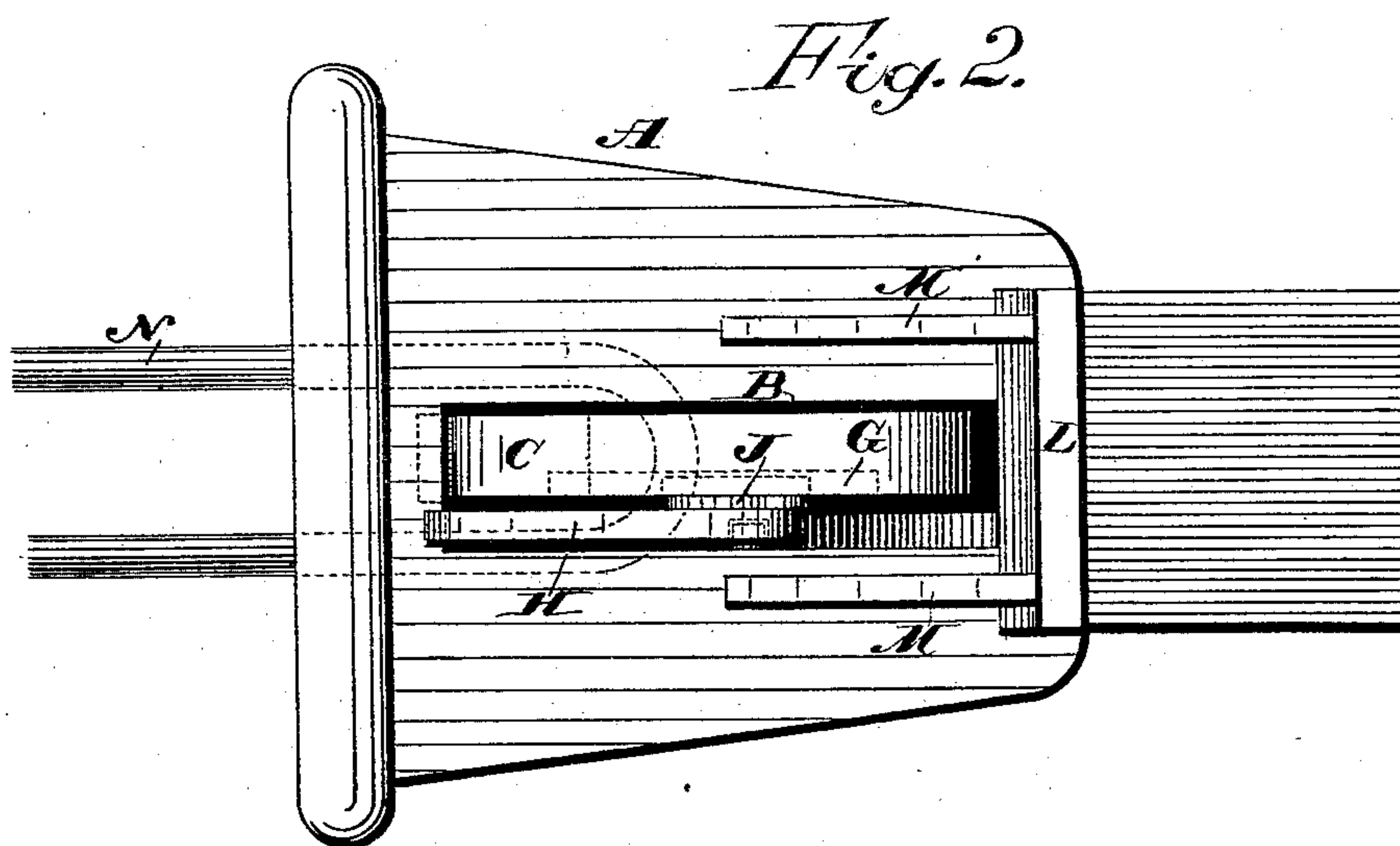
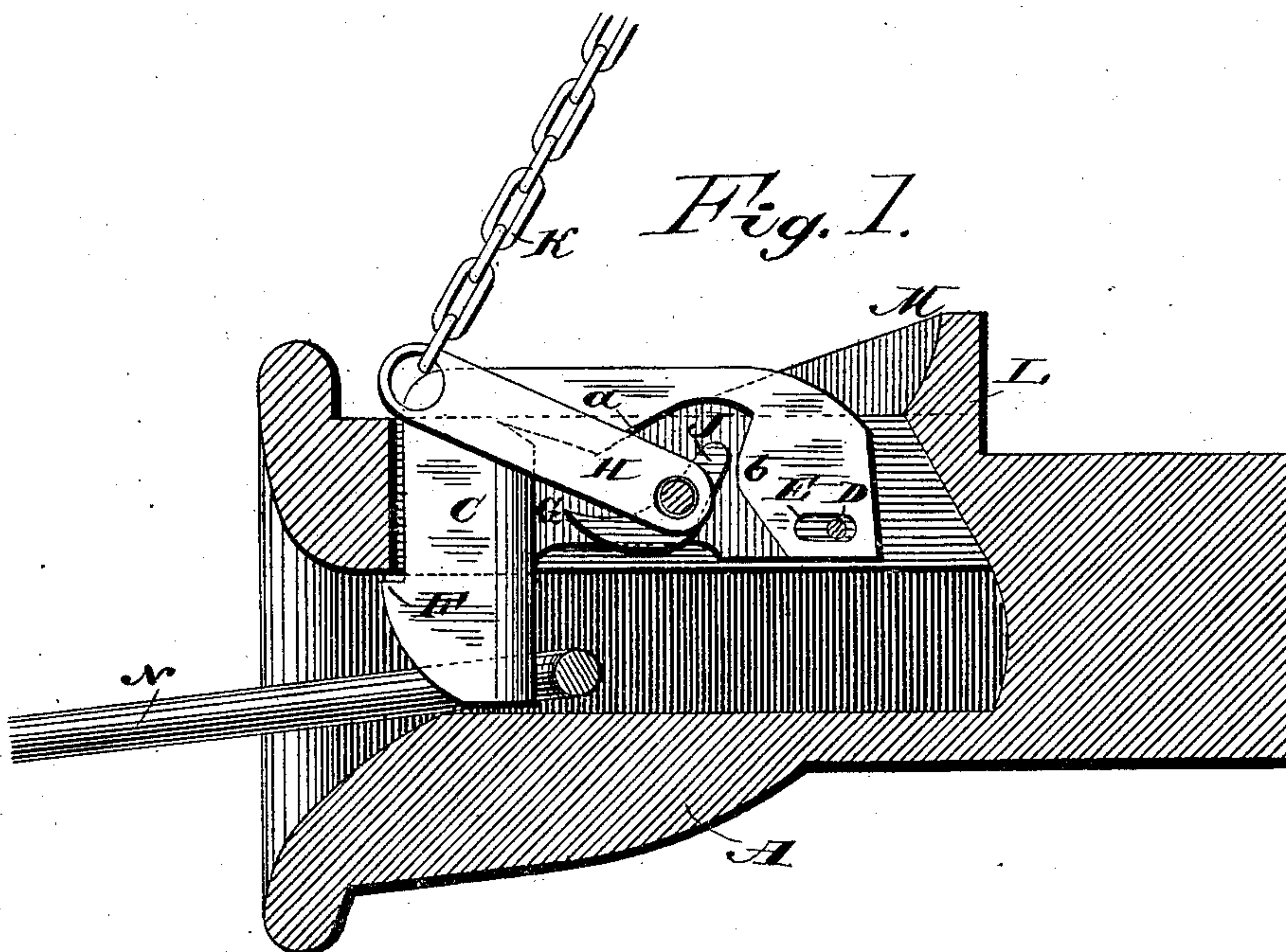
(No Model.)

C. P. JOHNSON & S. T. WALKLEY.

CAR COUPLING.

No. 275,662.

Patented Apr. 10, 1883.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CALVIN P. JOHNSON AND SAMUEL T. WALKLEY, OF SPRINGFIELD, MO.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 275,662, dated April 10, 1883.

Application filed January 15, 1883. (No model.)

*To all whom it may concern:*

Be it known that we, CALVIN P. JOHNSON and SAMUEL T. WALKLEY, both of Springfield, in the county of Greene and State of Missouri, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The invention consists in a draw-head having a longitudinal slot in its top, in which slot a hook-shaped coupling-pin is contained, which has a recess in one side. A lever is pivoted to that side of the slot facing the recessed side of the coupling-pin, and to the pivoted end of the said lever a cam is attached, which is adapted to act on the top and inner end of the recess in the pin, whereby when the lever is swung upward the cam pushes back the coupling-pin and then raises the same to permit withdrawing the link.

The invention also consists in a bumper or stop formed on the top of the draw-head to prevent the draw-head from being forced under the car in case the spring at the inner end of the draw-head breaks.

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

Figure 1 is a longitudinal sectional elevation of our improved car-coupling, showing the lever in the draw-head slightly raised. Fig. 2 is a plan view of the same.

The draw-head A is provided in its top with a longitudinal slot, B, in which a hook-shaped coupling-pin, C, is pivoted by means of a bolt, D, passing through a longitudinal slot, E, at the inner end of the horizontal arm of the hook-shaped coupling-pin. The coupling-pin is provided at its front end with a projection or nose, F, which is adapted to catch under the upper edge of the front or outer end of the slot in the draw-head, and prevents the coupling-pin from being thrown upward by the jolting of the car. The lower edge of the projection F on the pin C is beveled or curved downward and inward. The pin is provided in one side of its horizontal shank with a recess, G, which has its top projecting downward slightly from both ends to a point, a, at the middle of the top of the recess, and the rear or inner end of the recess is inclined for-

ward from the top and bottom to a point, b, at or near the middle of the inner end of the recess. A lever, H, is pivoted to that side of the slot B facing the recess G in the coupling-pin, and the front or free end of the lever H is attached to a chain, K, extending to the top of a car, or to a lever that can be worked from the side of the car. A cam, J, is attached to the lower or pivoted end of the lever H at about right angles to the same. A stop or projection, L, is formed on the top of the draw-head, and is stiffened by two inclined ribs, M. The front side of the stop is curved to adapt the upper end of the lever H to fit against the same. The stop L serves as a bumper to prevent the car from passing over the lever in case the springs attached to the rear part of the draw-head should break—that is, to prevent the front part of the draw-head from being forced under the car.

The operation is as follows: When the cars are coupled the draft on the link N draws the pin C toward the outer end of the draw-head, so that the projection or nose F catches under the upper edge of the opening of the draw-head, thus preventing the pin C from being thrown upward by the jolting of the cars, whereby accidental uncoupling of the cars is prevented. If a link enters the draw-head, it pushes back the pin C a short distance, and then forces itself under the same, whereby the cars will be coupled automatically. If the cars are to be uncoupled, the lever H is drawn or swung upward by means of the chain K or other appliances, whereby the cam J will be turned on the bolt by which the lever H is pivoted, and the upper end of the cam strikes against the part b at the inner end of the recess G and pushes the pin C backward or inward sufficiently to permit raising the pin. As the lever H continues to move upward the lower end of the cam J catches under the inclined part of the top of the recess G, in front of the point a, and swings the pin C upward, thus permitting the link to be withdrawn. As soon as the chain K, or the lever to which it is attached, is released the weight of the pin causes it to drop or swing down ready for coupling. When the cars are coupled the lever H is entirely within the slot B. To set the coupling so as not to couple, the lever is

thrown backward, and the front end of the cam holds the coupling-pin in such a position that it cannot couple.

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

1. The combination, with a draw-head having a longitudinal slot in its top, of a movable coupling-pin in the said slot, and a lever pivoted to one side of the slot, and provided at its pivoted end with a cam adapted to force back and then raise the pin, substantially as herein shown and described, and for the purpose set forth.

2. The combination, with the draw-head A, of the movable coupling-pin C, contained in a longitudinal slot in the draw-head, which pin is provided on one side with a recess, G, and of the lever H, pivoted to one side of the slot in the draw-head, and provided at its pivoted end with a cam, J, adapted to act on the top and inner end of the recess G, substantially as herein shown and described, and for the purpose set forth.

3. The combination, with the draw-head A, of the movable coupling-pin C, having in one side a recess, G, the top of which is inclined down toward a point, *a*, and the inner end of which is inclined forward toward a point, *b*, the lever H, pivoted to one side of the slot B on the draw-head, and of the cam J on the pivoted end of the lever H, substantially as herein shown and described, and for the purpose set forth.

4. The slotted draw-head A, provided with the stop or projection L on its top, having stiffening-ribs M, in combination with the pin-operating lever H, pivoted in the slot of the said draw-head, substantially as herein shown and described.

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Witnesses:

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