(No Model.) 2 Sheets—Sheet 1.

J. W. POSTON.

CAR COUPLING.

No. 485,333. Patented Nov. 1, 1892.

Fig. 1.

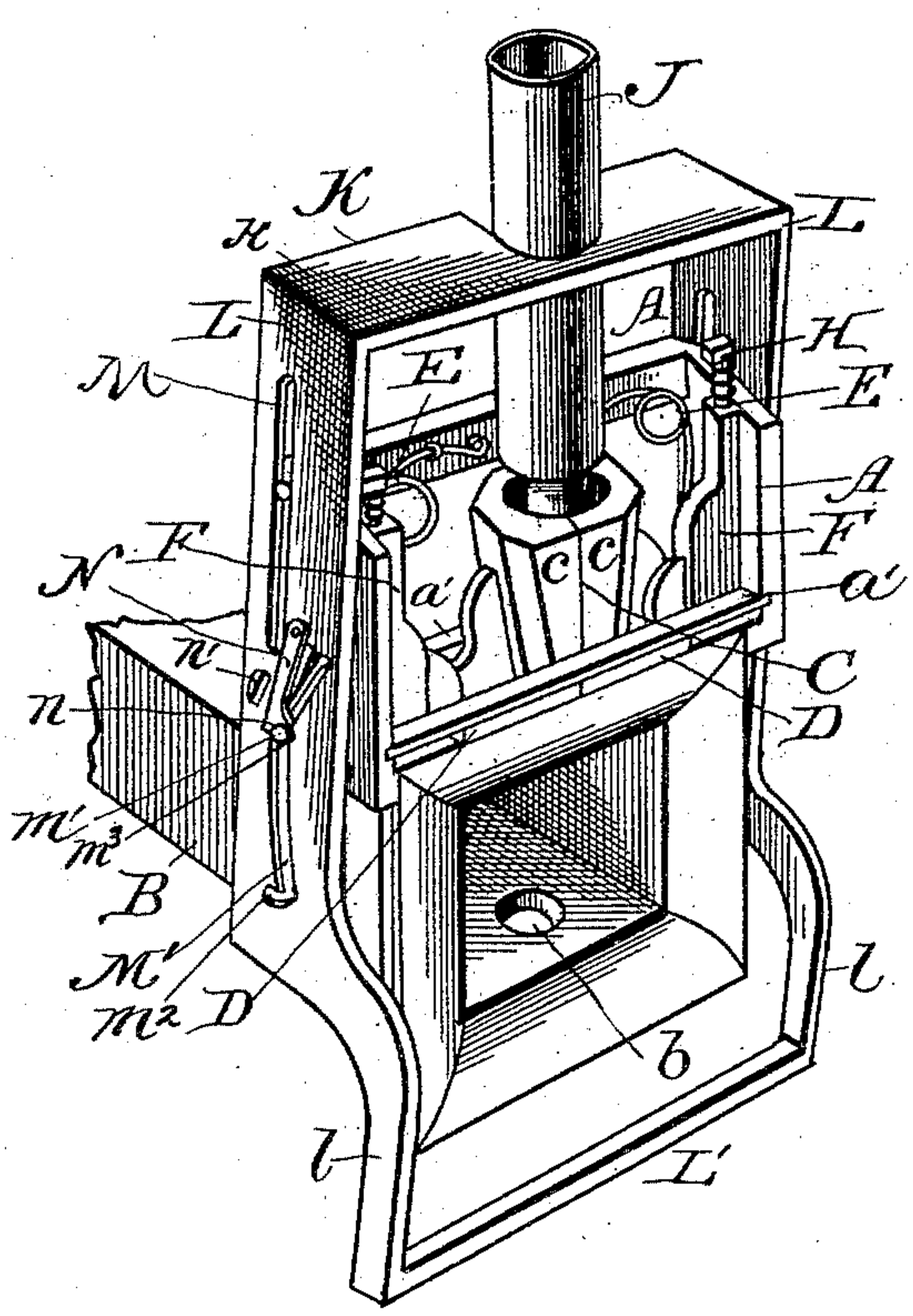
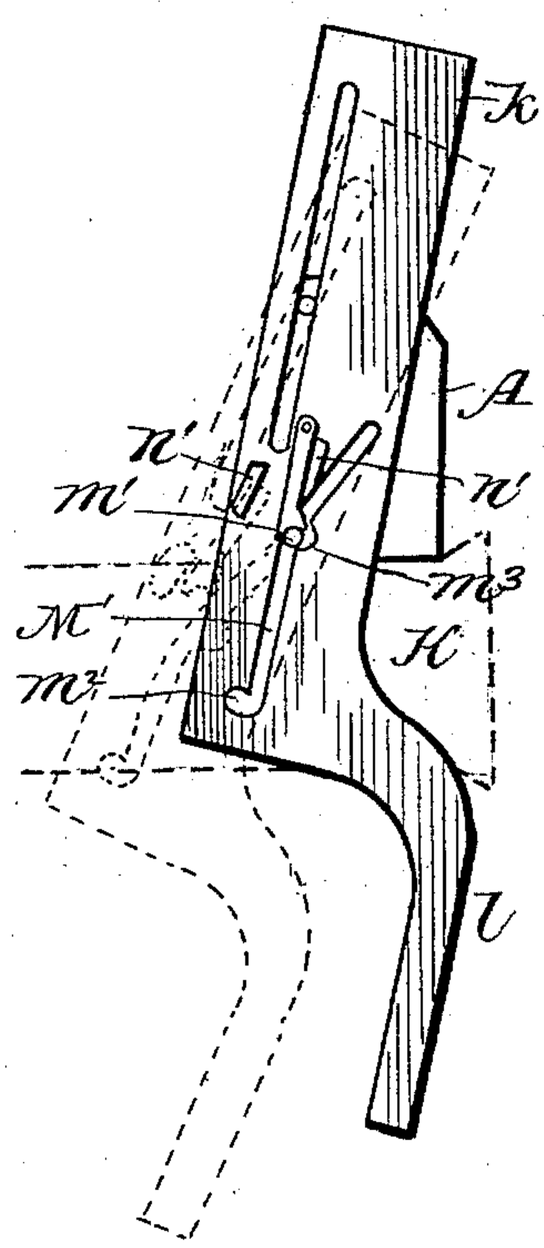


Fig. 2.



Witnesses
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W. A. Mitchell

Inventor
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By his Attorney
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(No Model.) 2 Sheets—Sheet 2.

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CAR COUPLING.

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Fig. 3.

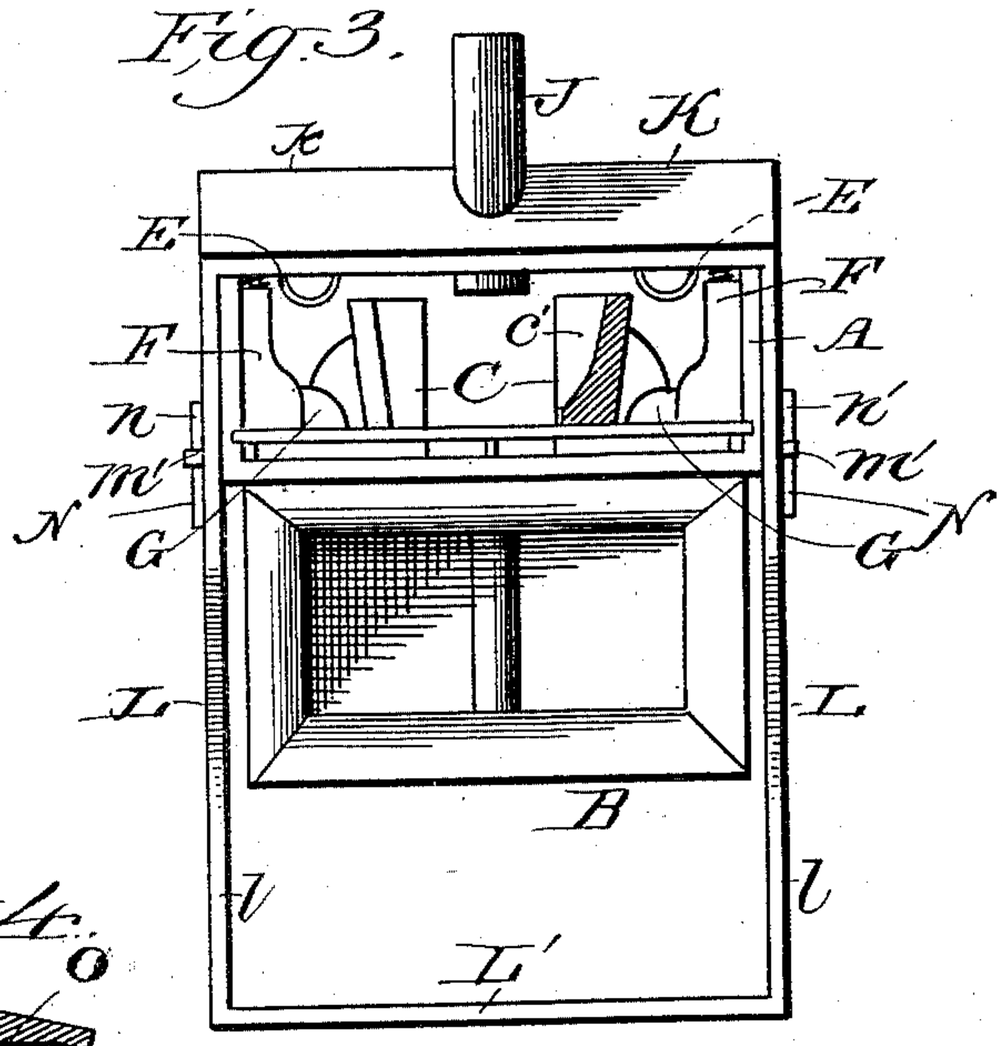


Fig. 4.

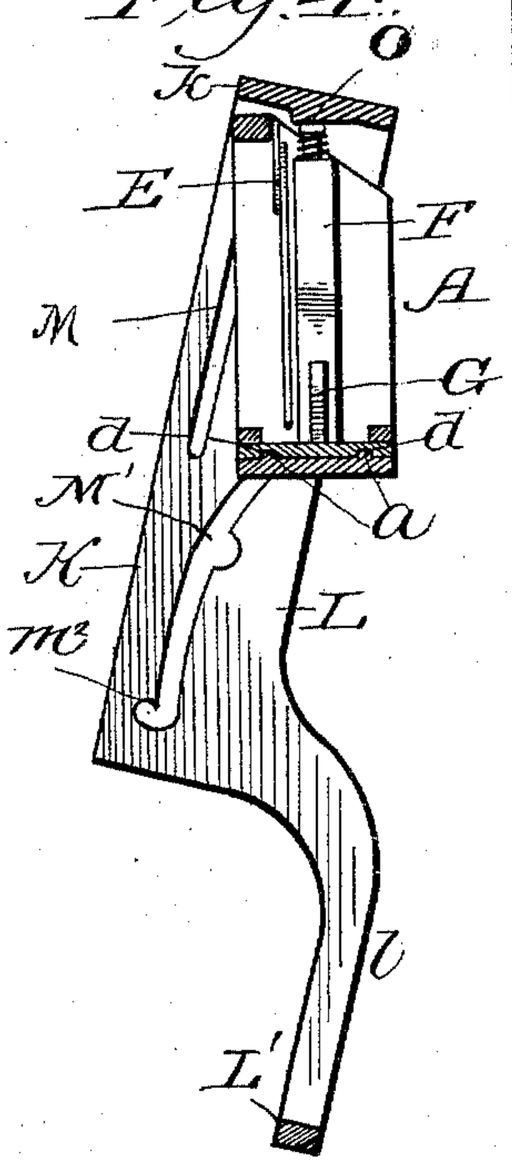
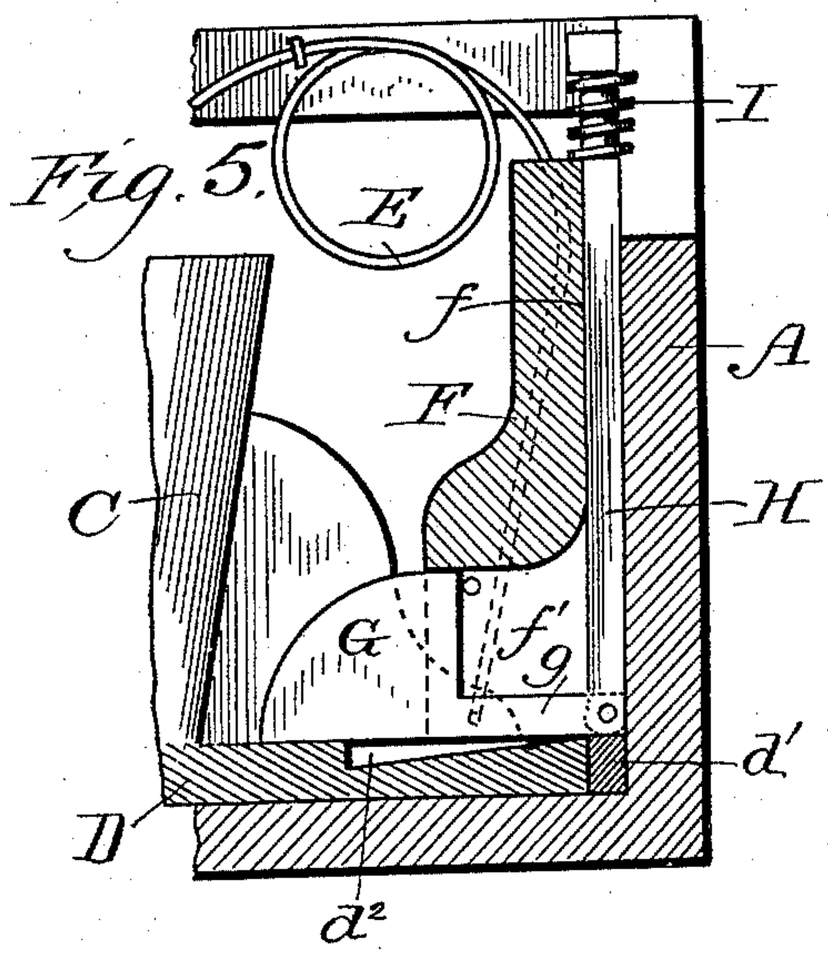


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSEPH WILSON POSTON, OF HOLLY SPRINGS, MISSISSIPPI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 485,333, dated November 1, 1892.

Application filed May 26, 1892. Serial No. 434,436. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH WILSON POSTON, a citizen of the United States, residing at Holly Springs, in the county of Marshall and State of Mississippi, have invented a new and useful Car-Coupling, of which the following is a specification.

This invention relates to car-couplings, and has special relation to attachments for pin-and-link couplings and designed for supporting the pin and link.

The present invention is particularly designed for use upon freight-car couplings; and it has for its object to provide a device adapted to be attached to the ordinary pin-and-link coupling, its office being to normally retain the link and pin in elevated position and automatically effect the coupling of the cars as the draw-heads come together.

A further object of the invention is to provide a device of this character designed to be manufactured and supplied independent of the coupling proper and readily attached to the pin-and-link couplings now in general use.

In the drawings, Figure 1 is a perspective view of a car-coupling illustrating the application of my invention, the pin being elevated. Fig. 2 is a side elevation, illustrating the parts of the device in relative position for receiving the link carried by an opposing draw-head, the position after coupling being illustrated in dotted lines. Fig. 3 is a front elevation of the device detached, the sections of the pin-supporting shoe being illustrated as separated. Fig. 4 is a vertical sectional view on the line *x x*, Fig. 3. Fig. 5 is a detail sectional view taken through one of the pin-supporting shoe-locking devices and adjacent parts.

Corresponding parts in the figures are denoted by the same letters of reference.

Referring to the drawings, A designates a frame rectangular in plan view and secured in any suitable manner upon a draw-head B, directly over the pin-eye *b*. The upper ends of the sides of this frame are beveled from the front rearwardly, the top bar being of a width corresponding to said reduced upper ends. Upon the base of said frame, near its front and rear edges, are provided parallel guide-tracks *a a*, and above said tracks guide-bars *a' a'*.

C designates the pin-supporting shoe, which consists of a block formed of two sections *c c*. These sections are each provided with an upwardly-flaring concave recess *c' c'*, forming conjunctively a circular channel within which is supported the coupling-pin. The sections *c c* of the shoe are each mounted on a sliding plate D D, provided at their under faces with grooves *d d* for receiving the tracks *a*. These plates work under the guide-bars *a'*, and are adapted when thrown apart to contact with cushions *d' d'*. Curved springs E E, secured at their upper ends to the top bar of the frame A, are pivotally connected at their lower ends to the shoe-sections, said springs exerting their tension to throw the shoe-sections apart.

To the opposing faces of the sides of the frame A are secured brackets F F, provided at their inner faces with vertical grooves *f f* and at their lower ends with vertical recesses *f' f'* intersecting said grooves. Within the recesses *f'* are pivoted segmentally-curved catches G G, having inwardly-projecting bifurcated arms *g g*. To each of the latter is pivotally connected a rod H, sliding in the respective grooves *f*. Upon the upper ends of the rods H are disposed coil-springs I I, exerting their tension to elevate said rods, and through this means depress the outer ends of the catches G. Normally the latter engage inclined recesses d^2 d^2 in the top surface of the plates D, and thus retain the sections of the shoe C together and in position for supporting the coupling-pin.

To the top bar of the frame A and centrally thereon is secured an upwardly-projecting tubular coupling-pin guide J, through which said pin is passed into the shoe.

K designates a frame rectangular in plan view and inclosing and working upon the frame A, the offices of said frame K being to support the link and automatically actuate the shoe to cause the same to release the coupling-pin. The frame K comprises a top *k* and sides L L. The latter are provided at their lower ends with outwardly and downwardly projecting arms *l l*, said arms being connected at their free ends by a link-supporting bar L'.

The frame K is mounted and adapted to work upon the frame A by means of trun-

nions *m m'*, projecting outwardly from the sides of the latter, said trunnions playing in slots M M', respectively, formed in the sides L. The slots M are straight and unbroken throughout their length and are located at the upper portion of the sides L, near their inner edges. The slots M' curve upwardly from near the lower ends of the sides L and near their rear edges forwardly to a point above the lower ends of the slots M. The slots M' are formed at their lower ends with offsets m^2, designed to receive the trunnions *m'* and support the frame K in elevated position, said offsets extending inwardly from the slots. About midway the slots M' the latter are further formed at their outer edges with shallow offsets m^3. Plates N N are pivoted at their upper ends to the sides L and provided at their lower ends with curved recesses *n n*, designed to receive the trunnions *m'* to retain the frame K in partially-elevated position. Stops *n'* are secured to the sides L in front and rear of the plates N to limit the play thereof.

Upon the under surface of the top of the frame K are secured two blocks O O in vertical alignment with the catch-operating rods H, so that when the frame K is released and falls said blocks will strike upon the ends of the rods H and release the sections of the pin-supporting shoe C.

The operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains. When the draw-head to which the device is applied carries the link, the pin is unsupported and the frame K is in elevated position, with the trunnions *m'* engaging the offsets m^2. In this position the bar L' supports the link; but when the link is carried by the opposing draw-head the frame K is partially lowered, the trunnions *m'* being engaged by the plates N. (See Fig. 2.) In this position the bar L is partially thrown down and out of use, while the coupling-pin which has been passed down through the guide J is supported in the shoe C. When the opposing coupling comes into contact with the frame K, set in the manner described, the trunnions *m'* are released from the plates N and the frame K falls. During the latter movement the blocks O strike the bars H, which in turn release the catches G, thus permitting the sections of the shoe C to be drawn apart and the pin released. Owing to the inclination of the slots *m'* when the frame K is elevated the link-supporter L' is located at the front of the draw-head and in position to support the link; but as the frame falls when released the link-supporter passes downwardly and rearwardly and under the draw-head.

I claim as my invention—

1. An attachment for pin-and-link car-couplings, comprising a stationary frame adapted to be mounted on the draw-head, a pin-supporting shoe consisting of two spring-held sliding sections normally locked in contact, and means for automatically releasing said sections when two cars come together, substantially as set forth.

2. An attachment for pin-and-link car-couplings, comprising a stationary frame adapted to be mounted on the draw-head, a pin-supporting shoe consisting of two spring-held sliding sections normally locked in contact, catches for locking said sections, and a sliding frame adapted to automatically fall and release said catches when two cars come together, substantially as set forth.

3. An attachment for pin-and-link car-couplings, comprising a stationary frame adapted to be mounted on the draw-head and provided with guides, a pin-supporting shoe consisting of two spring-held sections, sliding plates carrying said sections and provided with recesses, catches adapted to engage the latter to lock said sections in contact, vertical spring-held rods controlling said catches, and a sliding frame adapted to fall upon said rods when the cars come together and release the catches, substantially as set forth.

4. An attachment for pin-and-link car-couplings, comprising a stationary frame adapted to be mounted on the draw-head and provided with guides, a pin-supporting shoe consisting of two spring-held sections provided in their opposing faces with downwardly-convergent recesses, a tubular pin-guide carried by said frame and arranged above the shoe, and means for automatically releasing the shoe-sections when the cars come together, substantially as set forth.

5. The combination, with a stationary frame carrying a pin-supporting shoe consisting of two spring-held sections and means for locking the latter in contact, said frame being provided at each side with two outwardly-projecting trunnions, of a sliding frame provided in each side, respectively, with a straight and a curved slot receiving said trunnions, said curved slots terminating at their lower ends in offsets, substantially as and for the purpose set forth.

6. The combination, with a stationary frame carrying a pin-supporting shoe consisting of two spring-held sections and means for locking the latter in contact, of a sliding frame provided with a link-supporter, said frame being adapted when released to release the shoe-sections and carry the link-supporter downwardly and inwardly, substantially as and for the purpose set forth.

7. The combination, with a stationary frame carrying a pin-supporting shoe consisting of two spring-held sections and means for locking the latter in contact, said frame being provided at each side with two outwardly-projecting trunnions, of a sliding frame provided in each of its sides, respectively, with a straight and a curved slot receiving said trunnions, said curved slots terminating at their lower ends in offsets and having oppo-

sitely-located offsets about midway their length, and plates pivoted at their upper ends between the straight and curved slots and provided at their lower ends with curved recesses, the latter being adjacent to the upper end of said offsets, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH WILSON POSTON.

Witnesses:
CHESLEY DANIEL,
J. G. LINCH.