(No Model.) 2 Sheets—Sheet 1.

J. MOONEY.

CAR COUPLING.

No. 422,031. Patented Feb. 25, 1890.

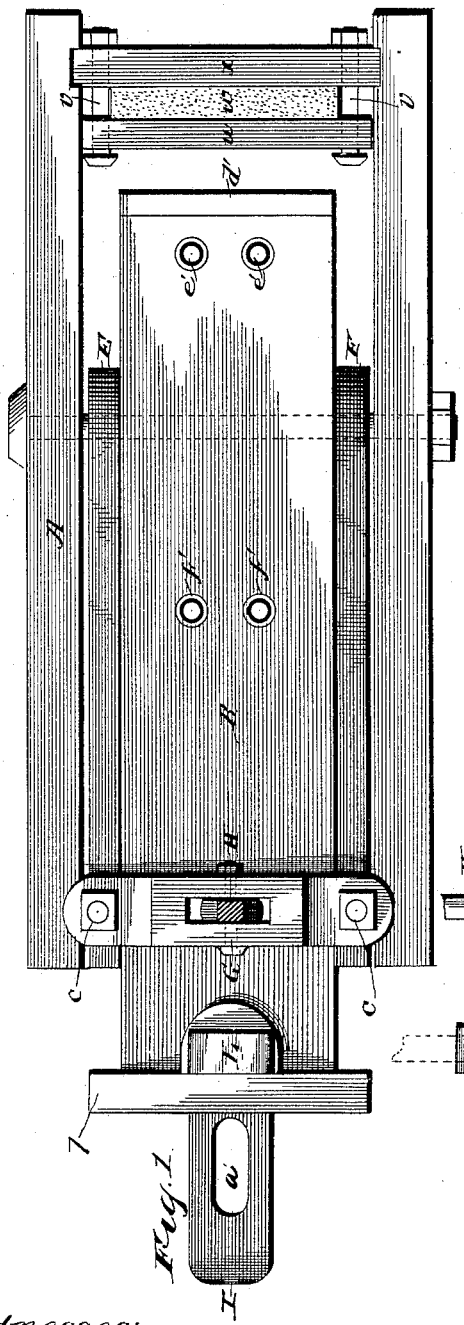

Fig. 1.

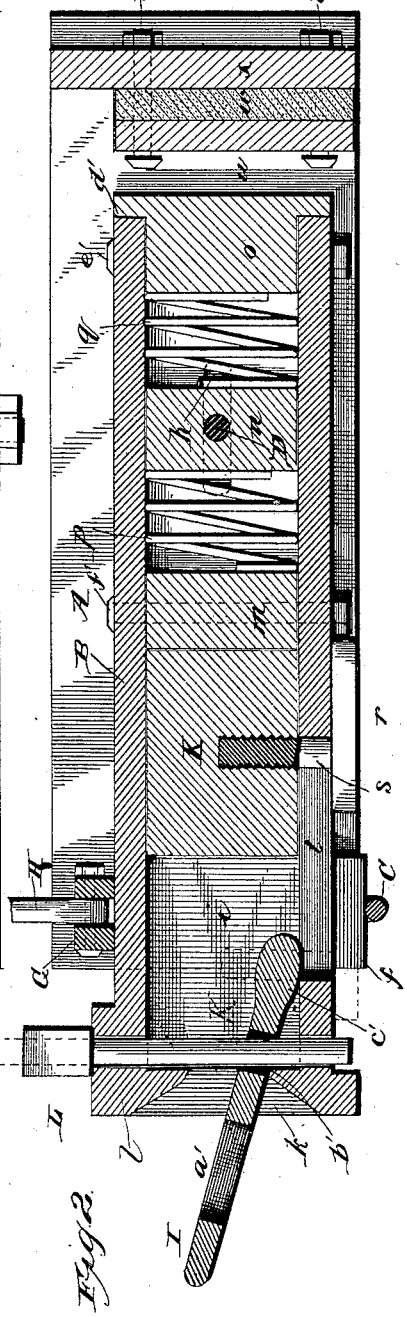

Fig. 2.

Witnesses:
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(No Model.) 2 Sheets—Sheet 2.

J. MOONEY.

CAR COUPLING.

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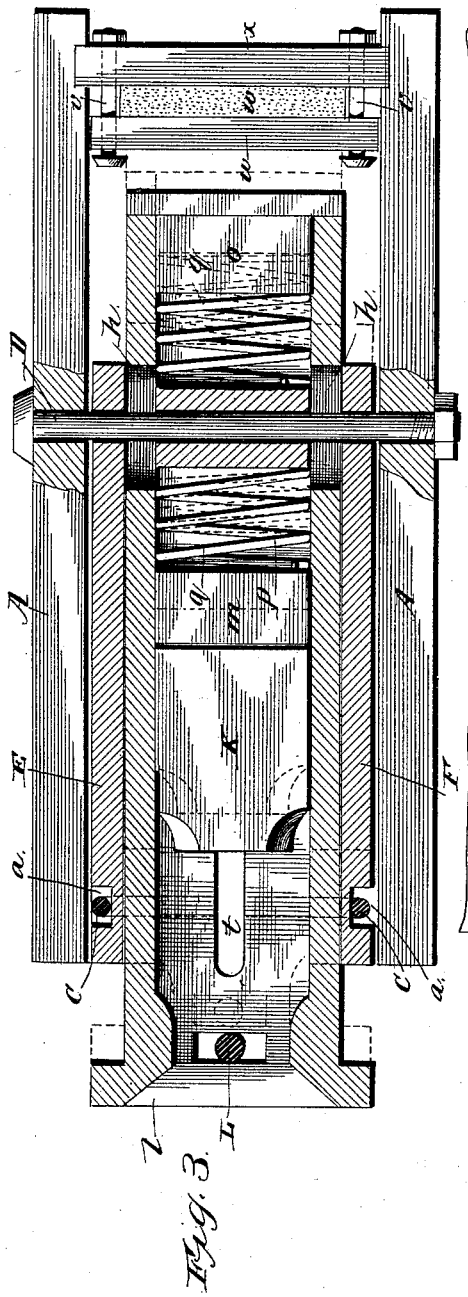

Fig. 3.

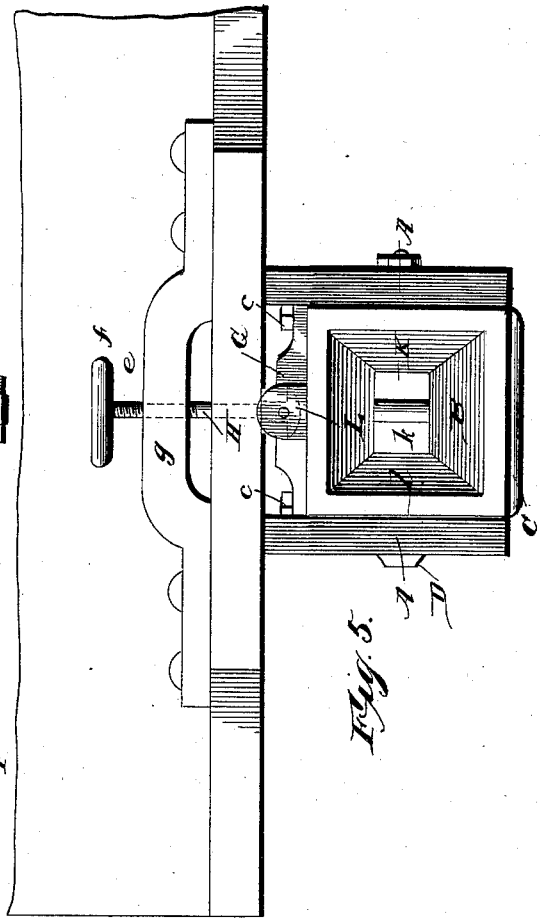

Fig. 5.

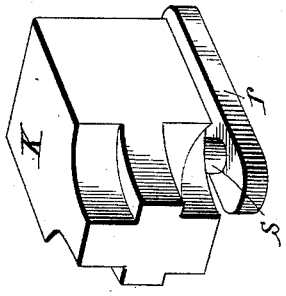

Fig. 4.

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UNITED STATES PATENT OFFICE.

JAMES MOONEY, OF CLARION, PENNSYLVANIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 422,031, dated February 25, 1890.

Application filed November 14, 1889. Serial No. 330,304. (No model.)

To all whom it may concern:

Be it known that I, JAMES MOONEY, a citizen of the United States, residing at Clarion, in the county of Clarion and State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to car-couplings, and has for its object certain improvements in construction, which will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, which form part of this specification, Figure 1 represents a plan of my improved coupling; Fig. 2, a longitudinal section; Fig. 3, a horizontal section; Fig. 4, a perspective of the tripping-block, and Fig. 5 a front elevation.

Reference being had to the drawings and the letters thereon, A indicates a frame of timber, secured under a car in the usual manner; B, a draw-bar suspended in said frame upon a yoke or stirrup C at the front end of the draw-bar and upon a transverse pin or rod D, which passes through the draw-bar and side supports E F. The side supports are provided with grooves *a* and laterally and inwardly projecting lugs *b*, upon which the draw-bar rests, and the draw-bar and said side supports are embraced by the yoke or stirrup C. To the free ends of the yoke is applied a bar G, secured thereto by nuts *c*, and in said bar is pivotally secured a rod H at *d* to allow the draw-bar to swing or vibrate laterally in rounding curves in a road-bed, and the upper end of said rod is screw-threaded, as at *e*, and provided with a hand-wheel *f*, having a screw-threaded aperture in its hub for adjusting the draw-bar vertically to accommodate the coupling to cars of different heights. The hand-wheel *f* rests upon a support *g*, secured to the cross-timber on the end of a car.

In the sides of the draw-bar, and near the rear end thereof, are slots *h*, through which the pin D passes, which allows the lateral vibration of the draw-bar referred to, and also provides for longitudinal movement or reciprocation of the draw-bar in the frame A when the draw-bar is struck by another one in coupling, or when a train of cars is started, as will hereinafter more fully appear.

Within the draw-bar is a chamber *i*, the bottom of which is below the plane of the link-opening *k* in the head *l* of the draw-bar, and within this chamber are contained the end of the link I, a tripping-block K, blocks or abutments *m*, *n*, and *o*, and springs *p q*. To the tripping-block K is attached an arm *r*, which is secured thereto by a screw-threaded rod *s*, which works in a slot *t* in the lower side of the draw-bar for moving the block into position under the coupling-pin L to be tripped by an approaching car, with whose coupling the link I engages. The position of the tripping-block when under the coupling-pin is shown in dotted lines in Fig. 2.

At the inner end of the frame A is placed a buffer consisting of a loose plate *u*, supported upon bolts *v*, and a piece or pieces of rubber *w*, secured to the end cross-piece *x* of the frame.

The first impact or jar of approaching cars in coupling is taken up by the spring *p*; but should the cars come together with great force the draw-bar is driven back and cushioned upon the buffer in the frame A. In starting the train the first movement of the car is taken up by the spring *q* until all of the links are in contact with their coupling-pins at both ends, when the strain is transferred to the pins.

The link I is provided with a slot *a'* at one end for engagement with one pin, an aperture *b'* for engagement with another pin, and a weighted extension *c'* beyond said aperture for the purpose of overbalancing the slotted portion of the link and causing it to elevate said slotted portion to cause the link to enter the link-opening *k* in an approaching draw-bar. The application of the link to the draw-bar is shown in Fig. 2. The near end of the chamber *i* is closed by a plate *d'*, of which the block *o* forms an integral part and is secured in the draw-bar by bolts *e'*, passing through the draw-bar and the block, and the block *m* is secured in the chamber *i* by bolts *f'*.

Having thus fully described my invention, what I claim is—

1. In a car-coupling, a draw-bar, a verti-

cally-adjustable yoke in which the draw-bar is supported at its front end, and a pin passing transversely through and supporting the draw-bar at its rear end, in combination with a link and a pin, substantially as described.

2. In a car-coupling, a draw-bar, a vertically-adjustable and laterally-vibrating yoke in which the draw-bar is supported at its front end, slots in the sides of the draw-bar near its rear end, and a pin passing through said slots, in combination with a link and a pin, substantially as described.

3. In a car-coupling, a draw-bar, vertically-movable supports on the sides of the draw-bar, a yoke embracing said supports and the draw-bar at the front end, a bar connecting the free ends of the yoke, means for adjusting the draw-bar vertically, and a pin at the rear end passing transversely through the draw-bar, in combination with a link and a pin, substantially as described.

4. In a car-coupling, a draw-bar, vertically-adjustable supports on the sides thereof, a yoke embracing said supports and the draw-bar at the front end, a bar attached to the upper end of the yoke, a rod pivotally connected to said bar, an adjusting-wheel at the opposite end of said rod, and a support for the wheel, in combination with a link and a pin, substantially as described.

5. In a car-coupling, a draw-bar having a link-chamber in the head thereof, the bottom of which is below the plane of the link-opening in the head, in combination with a tripping-block having an extension projecting through the draw-bar, a link having a slot for one coupling-pin, an aperture for another pin, and a weighted extension beyond said aperture, and suitable pins for engaging said slot and aperture, substantially as described.

6. In a car-coupling, a reciprocating draw-bar, a support at the front end thereof, slots in the sides and near the rear end of the bar, a chamber within the bar, blocks or abutments in said chamber, and springs between said blocks, in combination with a frame and a pin engaging with the frame and passing through the draw-bar and the middle block, substantially as described.

7. In a car-coupling, a draw-bar, a yoke in which the draw-bar is suspended, a transverse pin, and slots in the draw-bar, in combination with a frame fixed to the car and a buffer at the inner end of said frame, substantially as described.

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

JAMES MOONEY.

Witnesses:
THOS. H. MARTIN,
O. M. BALL.