(No Model.)

# J. MUTTON.

## CAR COUPLING.

No. 396,888. Patented Jan. 29, 1889.

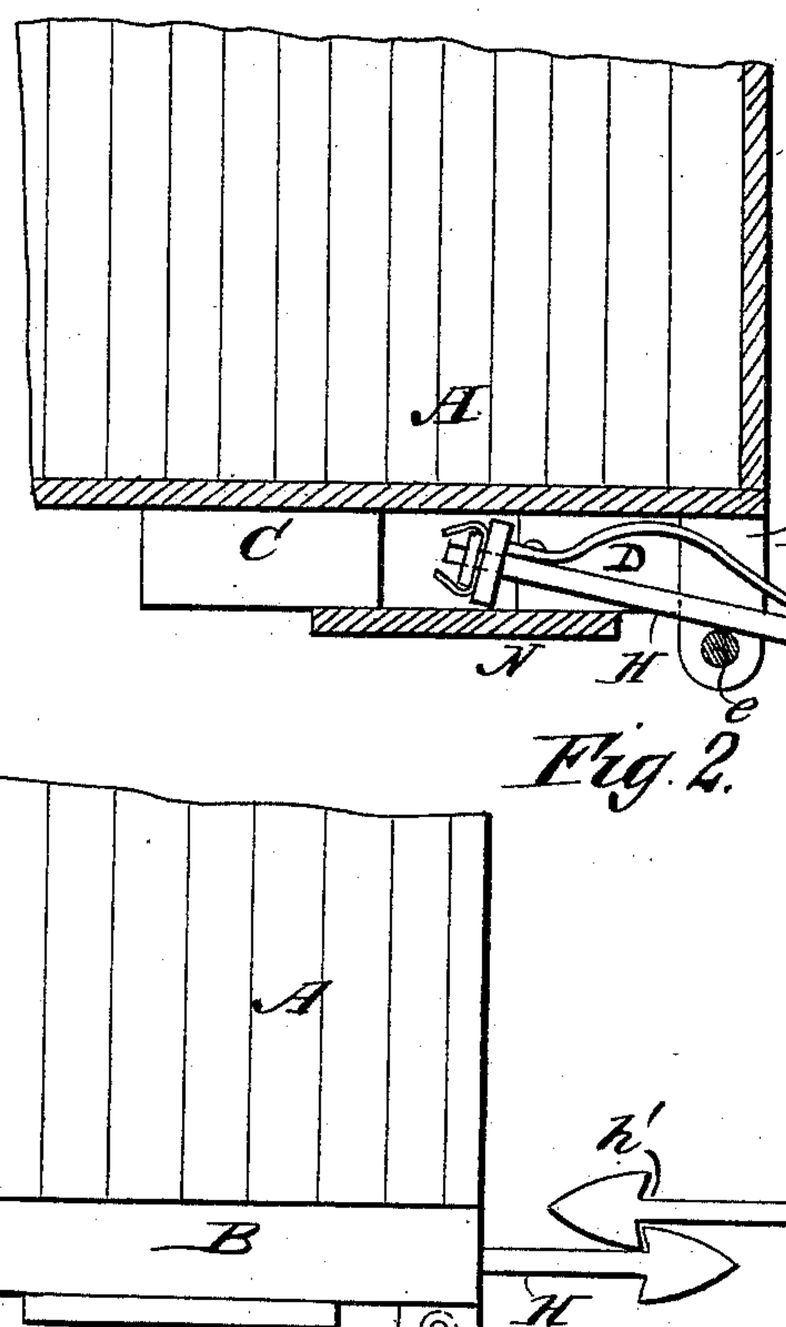


Fig. 1.

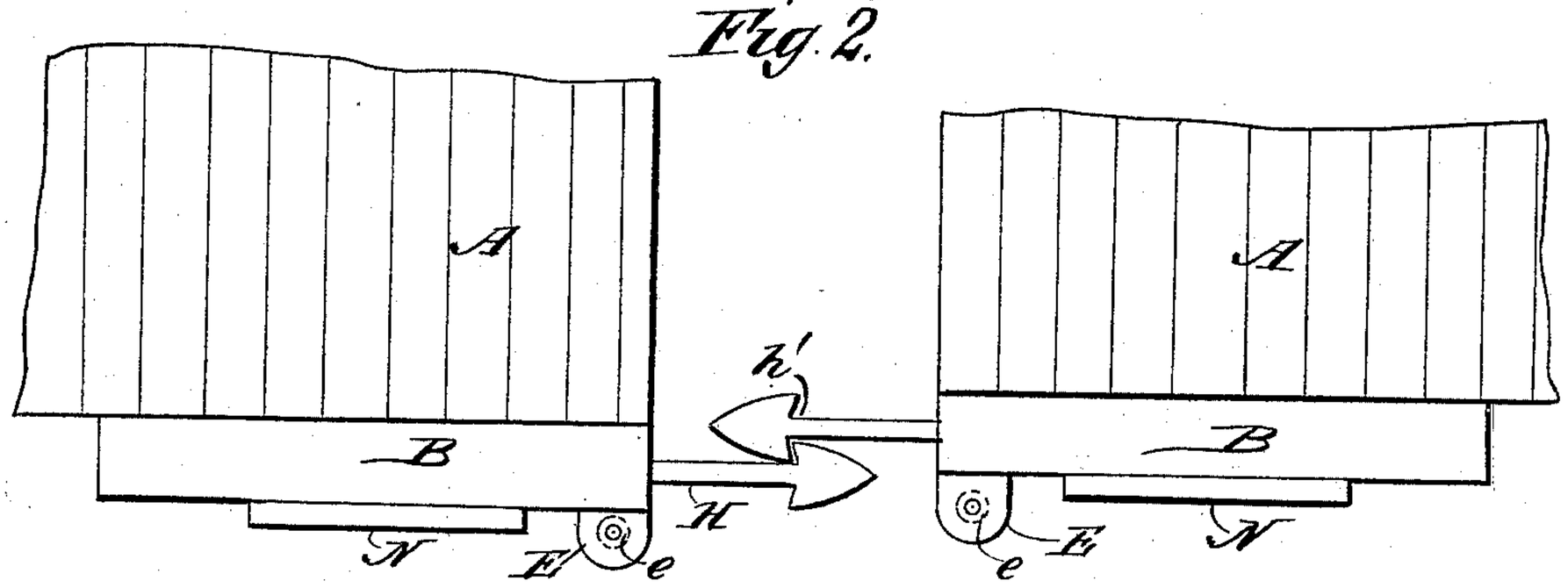


Fig. 2.

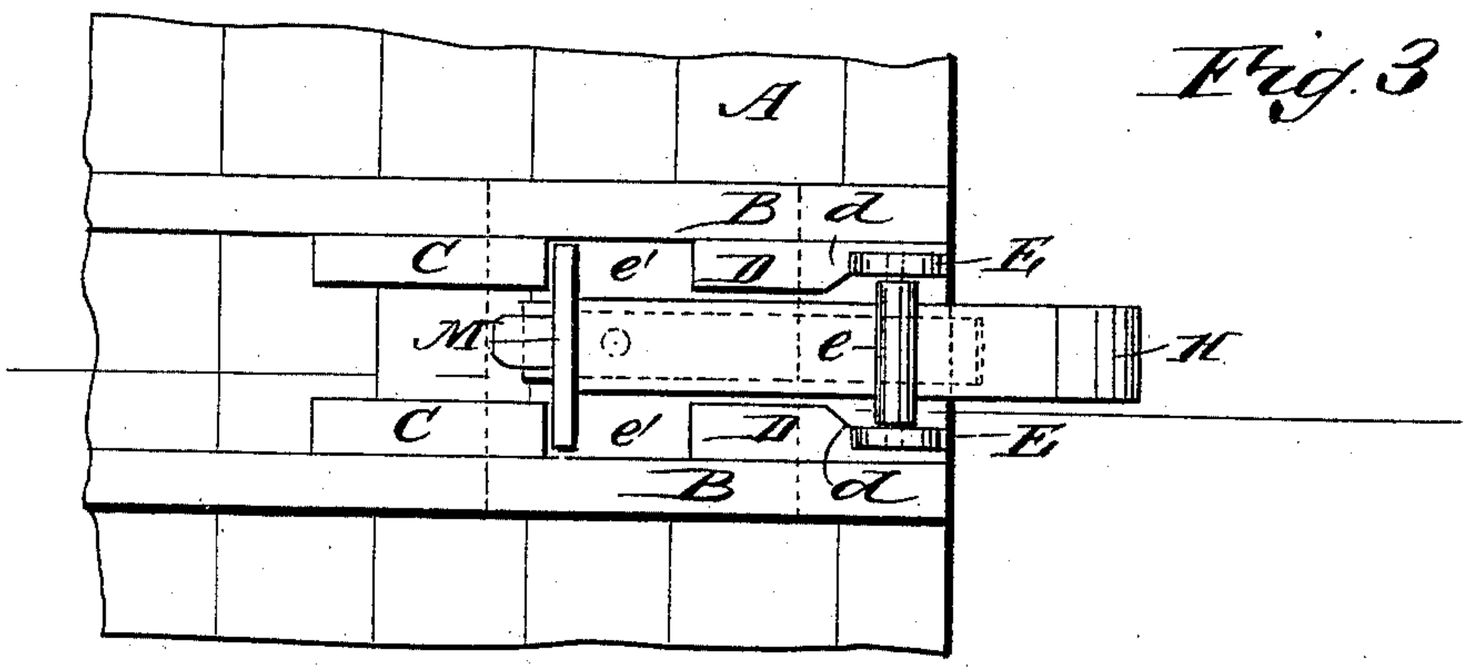


Fig. 3

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# UNITED STATES PATENT OFFICE.

JAMES MUTTON, OF FRISCO, UTAH TERRITORY.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 396,888, dated January 29, 1889.

Application filed November 8, 1888. Serial No. 290,268. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES MUTTON, of Frisco, in the county of Beaver and Territory of Utah, have invented a new and Improved Car-Coupler, of which the following is a full, clear, and exact description.

My invention relates to an improvement in car-couplers, and has for its object to provide a car-coupler of simple, durable, and effective construction; and the further object of the invention is to provide a coupler whereby two opposing cars may be united without the operator passing between the cars, and wherein the cars will couple whether the approaching link passes beneath or over the opposing link.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

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 all the figures.

Figure 1 is a vertical longitudinal section through a portion of a car having my improved coupler attached thereto. Fig. 2 is a side elevation of a portion of two opposing cars, illustrating the coupling of the links; and Fig. 3 is a bottom plan view of the coupler with the base-plate removed.

In carrying out the invention, A represents a car-body, and B the longitudinal sills, arranged at each side of the body upon the under side of the same, as best illustrated in Fig. 3. To the approaching sides of the sills, a suitable distance from the end of the car, two opposing blocks, C, are secured, and at or near the end of the car two other opposing blocks, D, are attached in similar manner to the aforesaid blocks C, the attachment being effected through the medium of bolts passing through the blocks and sills or in any other approved or suitable manner.

The forward ends of the forward blocks, D, are provided upon their inner faces with a recess, *d*, in which recess the upper ends of downwardly-projecting and perpendicular bars E are secured, and in the lower end of the said perpendicular bars E a friction-roller, *e*, is journaled, the upper surface of the said friction-roller being preferably in essentially the same plane with the lower surface of the blocks D, as best illustrated in Fig. 1.

Between the blocks D and C an intervening space, *e'*, is provided, and the blocks D are adapted to extend outward parallel with the outer end of the car-body.

If in practice it is found desirable in connection with the blocks D, the usual draw-head may be employed.

The link H consists of a rectangular bar provided with an arrow-shaped head, *h*, integral with its outer end, the inner ends of which head *h* are inclined from the upper and lower sides inward in direction of the body, as best illustrated in Fig. 2, whereby an essentially-angular recess, *h'*, is provided. The inner end of the body of the link H is adapted to pass over and bear upon the friction-roller E and reciprocate between the blocks D. To the inner end of the said link a guide-plate, M, is secured transversely to the same and at right angles thereto, which guide-plate is purposed to reciprocate in the space *e'* intervening the blocks C and D, the extremities of the said plate being essentially in contact with the approaching faces of the sills B.

At or near the inner extremity of the link H a spring, M', is secured, which spring is curved upward from its point of attachment and downward to an engagement with the upper face of the link a slight distance to the rear of the head, as best illustrated in Fig. 1.

The space *e'* intervening the blocks C and D is inclosed through the medium of a base-plate, N, which plate is attached to the said blocks C and D, and is purposed to prevent the guide-plate from dropping or falling from its bearings.

In operation it will be observed that the approaching link in coupling will engage with the opposing link of the standing train, no matter whether the head of the approaching link passes above or below the head of the opposing link, as when the train is started the upper or lower recessed surface of the approaching link will engage with the reverse surface of the standing link, as best illustrated in Fig. 2.

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

1. In a car-coupler, the combination, with the sills of the car, of opposing blocks attached to the said sills a distance from the end of the said car, and equivalent blocks secured to the said sills at the end of the car, of downwardly-extending perpendicular bars or arms secured to the forward end of the forward blocks, a friction-roller journaled in said bars, a link provided with an arrow-shaped head reciprocating between the forward blocks and upon the roller, a guide-plate secured to the inner end of the link reciprocating between the forward and rear blocks, and a base-plate covering the space intervening the said forward and rear blocks, as and for the purpose specified.

2. In a car-coupler, the combination, with the car-body and longitudinal sills secured to the under surface of the same, opposing blocks secured to the sills a distance from the end of the body, spaced opposing blocks attached to the said sills at the end of the said body, provided with recesses in their forward contiguous faces, downwardly-extending perpendicular bars or arms secured to the recessed surfaces of the forward blocks, and a friction-roller journaled in said bars, of a link reciprocating between the forward blocks, bearing upon the roller, provided with an arrow-like head, a transverse guide-plate attached to the inner end of the link reciprocating in the space intervening the forward and rear blocks, a spring secured to the upper surface of said link, having a bearing against the under surface of the car, and a guide-plate secured to the said blocks and covering the space intervening the same, all combined to operate substantially as shown and described.

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Witnesses:
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