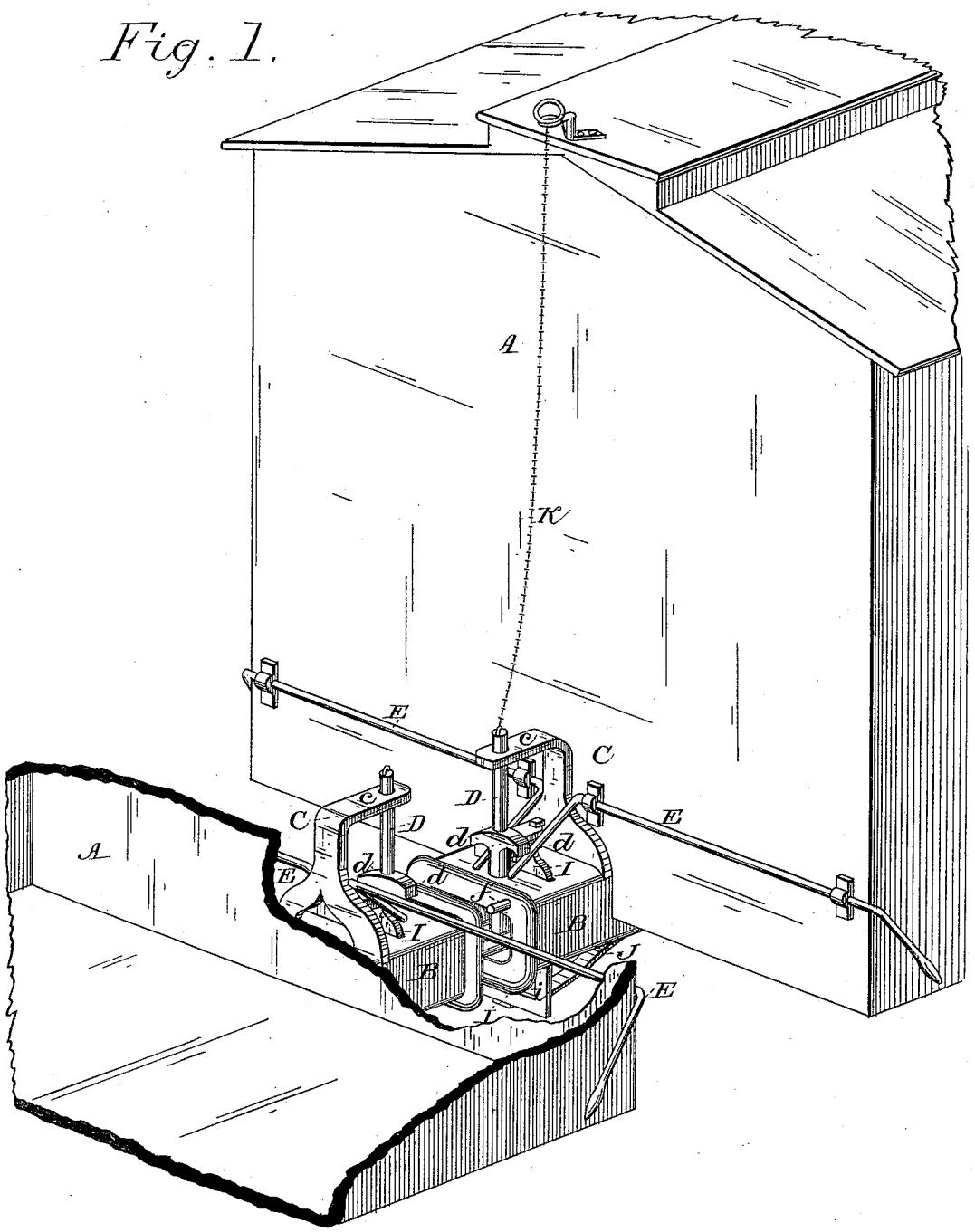
(No Model.) 2 Sheets—Sheet 1.

T. H. McNAMEE.

CAR COUPLING.

No. 303,394. Patented Aug. 12, 1884.

Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

T. H. McNAMEE.

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Fig. 2.

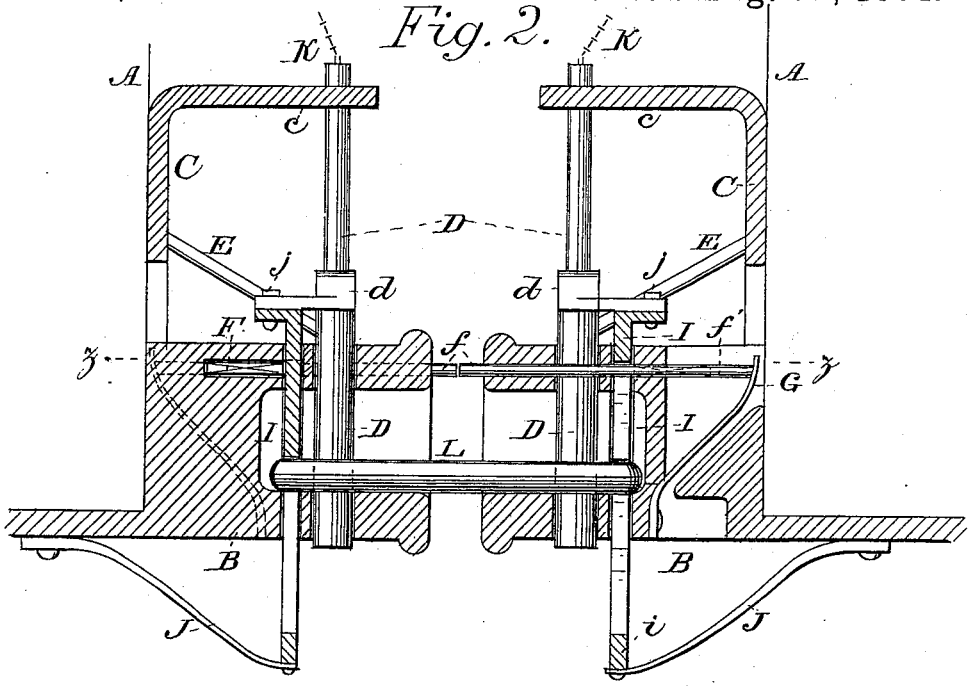


Fig. 3.

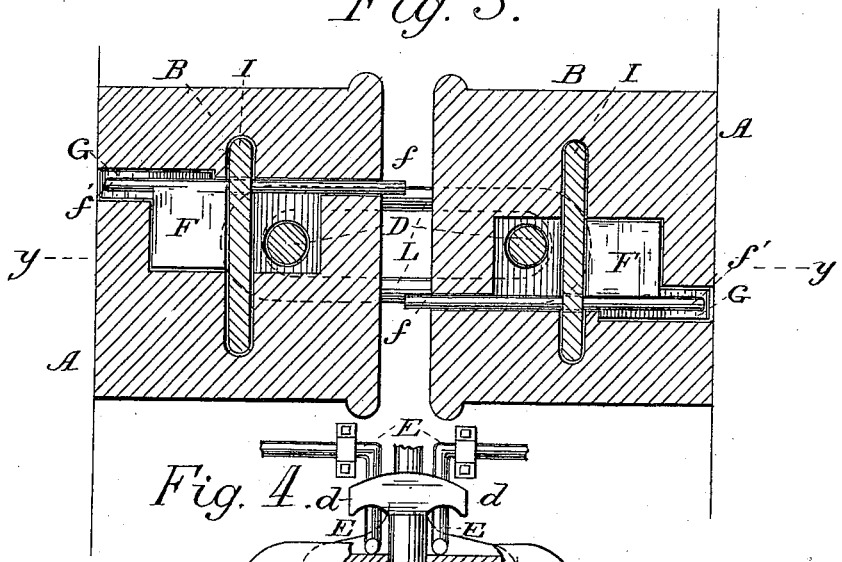
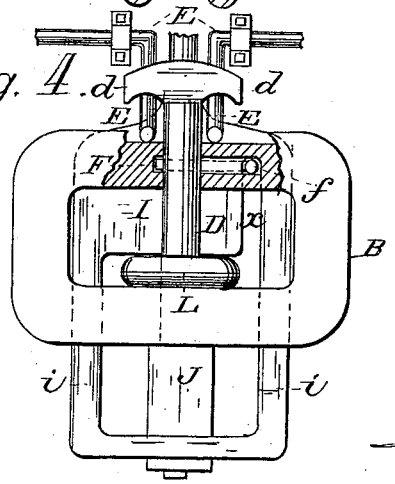


Fig. 4.



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UNITED STATES PATENT OFFICE.

THOMAS H. MCNAMEE, OF LEMOORE, CALIFORNIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 303,394, dated August 12, 1884.

Application filed May 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. MCNAMEE, of Lemoore, county of Tulare and State of California, have invented an Improvement in Car-Couplings; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a new and useful car-coupling; and it consists in a draw-head provided with a vertically moving and guided coupling-pin, adapted to be raised by means of oscillating crank-levers extending to the sides and held in a raised position, and tripped to effect its fall, by means of a horizontally-moving spring latch-plate operated by the impact of the opposing draw-head. Connected with and operated by the coupling-pin is a vertically-moving spring-plate adapted to bear upon the rear end of the link and hold it in a straight position, all of which I shall hereinafter fully describe.

The object of my invention is to provide a simple and effective automatic coupling for cars, which may be operated without requiring the brakeman to go between the cars.

Referring to the accompanying drawings, Figure 1 is a perspective view of my car-coupling. Fig. 2 is a vertical longitudinal section of same. Fig. 3 is a horizontal longitudinal section. Fig. 4 is a front view of one-half of the coupling with a portion of top of the draw-head broken away.

A represents the ends of the meeting cars, and B the draw-heads on each. As the coupling is a double counterpart one, to enable the cars to be reversed and coupled end for end, I shall confine my description to the parts of but one draw-head. Secured to the car between the rear of the draw-head and the end of the car is a standard, C, having a guide-arm, *c*, at right angles, and extending over the draw-head.

D is the coupling-pin, adapted to pass down through the draw-head and draw-head chamber. The pin is held vertically and guided in its movement by having its top pass through the guide-arm *c*.

Upon the body of the pin, about midway of its length, are oppositely-extending lugs *d*, under which engage the ends of the oscillating crank-levers E. These levers consist of bent rods, the bodies of which are journaled on the end of the car, while their handle ends are free of its sides, whereby they may be operated from the sides, to cause their inner end to raise the pin D from its engagement; but when the pin is raised there should be some kind of latch mechanism to hold it up until the link from the opposing draw-head can enter, and then to release it to engage with the link. For this purpose I have the following: F is a flat plate fitted in a horizontal plane in a socket made in the draw-head from its back, and communicating with the hole through which the coupling-pin operates, Fig. 3. The rear end of the plate, in the form of a pin or shank, *f'*, is operated upon by a spring, G, under the influence of which it is pushed and held forward, so that its forward end traverses either wholly or partially the coupling-pin hole, Fig. 2. Its forward end is provided with a stem, *f*, to one side of the hole and projecting forward through the body of the draw-head to the front, where it projects as a nipple, as shown. When the coupling-pin D is raised, the latch-plate F springs forward across the hole and supports the pin in a raised position. The opposing draw-head, when the cars come together and the link is inserted, strikes the nipple-stem *f* and forces back the latch-plate, whereby the coupling-pin is released and falls down through the link to couple the cars. Now, in order to hold the link steady in a horizontal position, adapting it for entrance into the opposing draw-head, I have the following device: Through the upper wall of the draw-head, and just back of the coupling-pin hole, is made a transverse vertical elongated slot, through which plays a plate, I, the lower end of which is adapted to bear down upon the rear end of the link L and hold it straight, Figs. 2, 3, 4. Two legs, *i*, extending from this plate pass down through the lower wall of the draw-head, and are connected with a long flat spring, J, secured by one end under the car. This spring holds the plate I down upon the link. In one side of the plate, Fig. 4, is a vertical slot, *x*, through which the rear shank, *f'*, of plate F passes, whereby said plate may move back and forth, and plate I up and down. The upper end of the plate is connected by a bolt, *j*, with the coupling-pin

D, whereby when the latter is raised the plate is also raised out of the way of the incoming link. By having this plate in both draw-heads, either is adapted to contain or to receive the link, so that the cars may be coupled at either end. A chain or cord, K, is connected with the top of the coupling-pin, and extends to the top of the car, whereby the uncoupling may be effected from above as well as from the side.

It will be seen that the operations of the plates F and I do not conflict, for the reason that when the function of the plate F is needed the pin D, and consequently the plate I, is raised, and vice versa.

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

1. In a car-coupling, the draw-head B, the standard C, having the guide-arm *c*, and the vertically-moving coupling-pin D, entering the draw-head and guided by the arm *c*, and having the side lugs, *d*, in combination with the oscillating crank-levers E, engaging under the lugs and extending to the sides of the car, whereby said pin may be raised or released, substantially as herein described.

2. In a car-coupling, the draw-head B and the vertically-guided coupling-pin D, having side lugs, *d*, in combination with the means by which it is raised, consisting of the oscillating crank-levers E, operating under the lugs *d*, and the means by which it is supported when raised and tripped, to effect its fall, consisting of the horizontally-moving spring latch-plate F, having forwardly-projecting stem *f*, all arranged to operate substantially as herein described.

3. In a car-coupling, the draw-head B, standard C, coupling-pin D, and the link L, in combination with the vertically-moving spring-plate I, passing through the upper wall of the draw-head, and adapted to bear upon the rear end of the link, to hold said link straight, substantially as herein described.

4. In a car-coupling, the draw-head B, standard C, coupling-pin D, and the link L, in combination with the vertically-moving plate I, passing through the upper wall of the draw-head, and adapted to bear upon the rear end of the link, said plate having legs *i* extending down through the draw-head, and the spring J connected with said legs, whereby the plate is held down, substantially as herein described.

5. In a car-coupling, the draw-head B and link L, in combination with the vertically-moving coupling-pin D, engaging with said link, the vertically-moving plate I, connected above with the coupling-pin, and passing down through the upper wall of the draw-head to the rear end of the link, upon which it is adapted to bear, said plate having legs *i* extending down through the draw-head, and the spring J connected with said legs, and the horizontal spring-plate F, having the rear shank, *f'*, extending through a vertical slot, *x*, in plate I, and a forwardly-projecting stem, *f*, substantially as and for the purpose herein described.

In witness whereof I have hereunto set my hand.

THOMAS H. McNAMEE.

Witnesses:
M. H. LOVELACE,
JAMES A. BURNS.