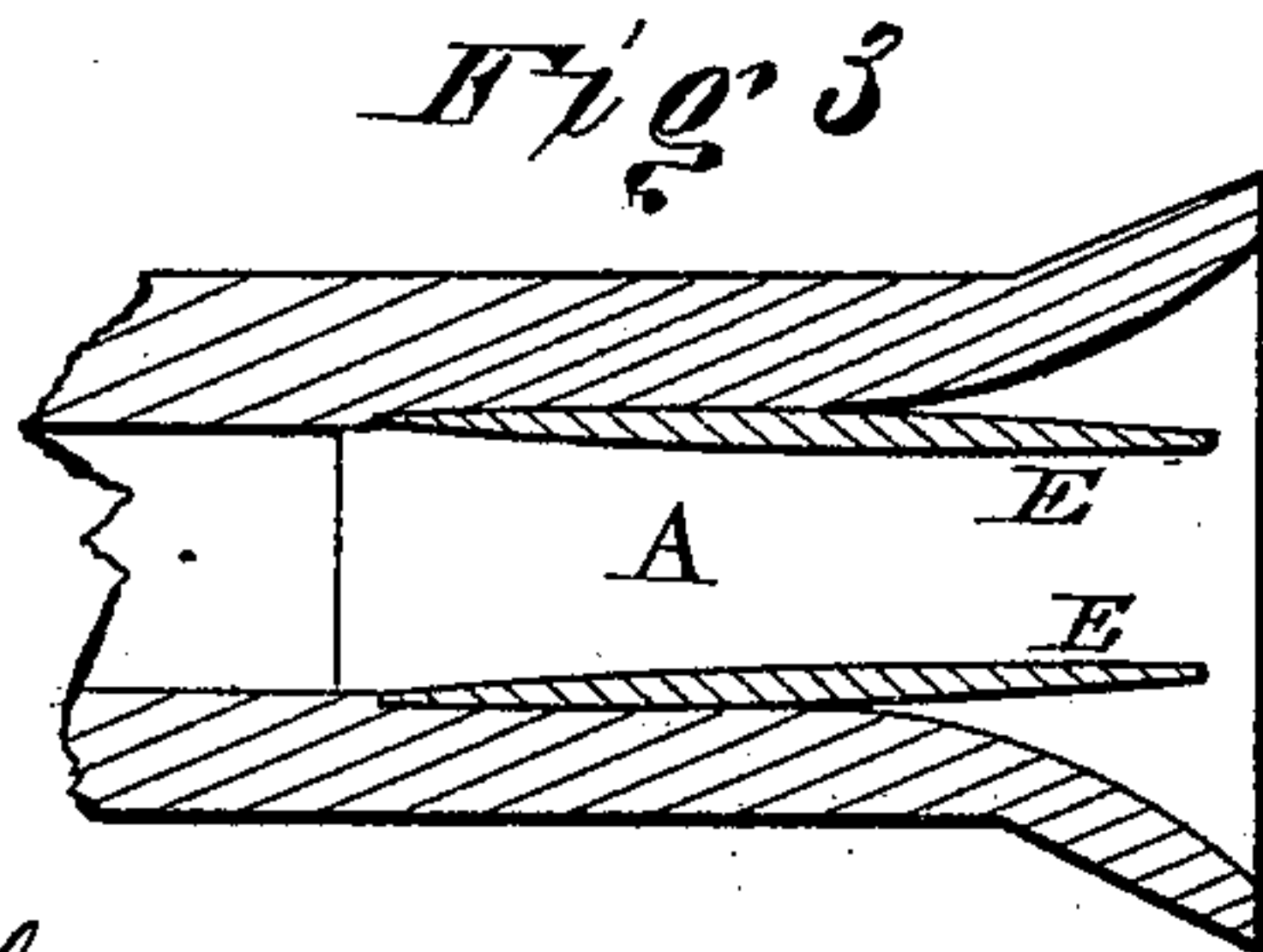
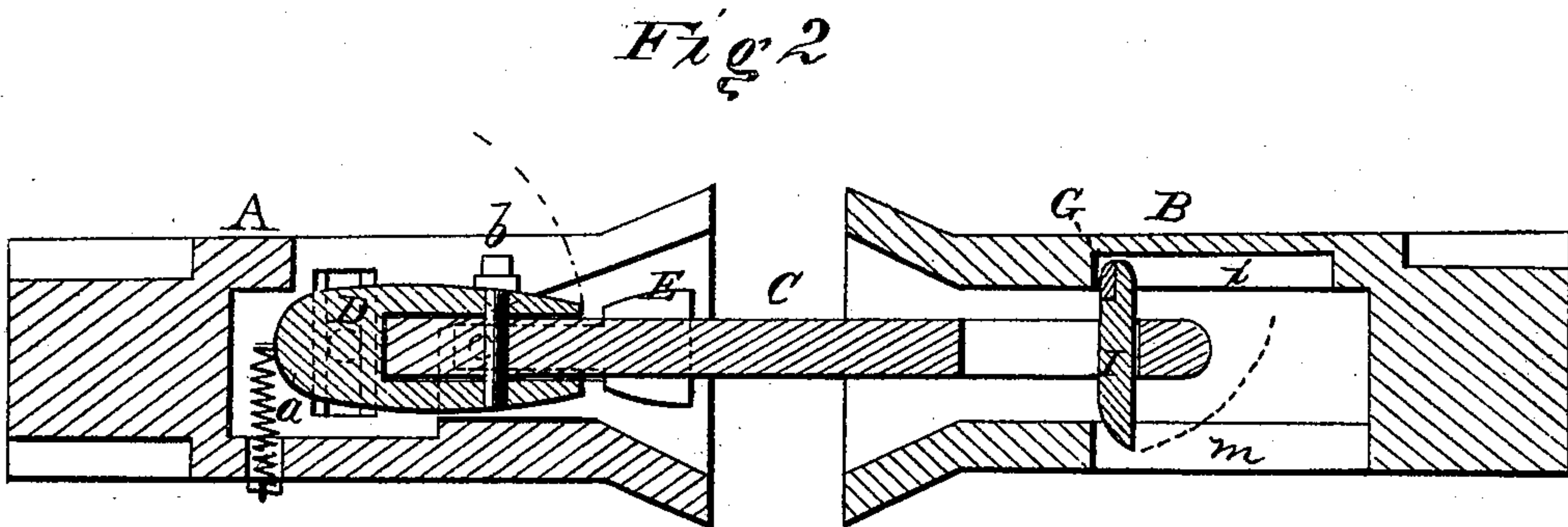
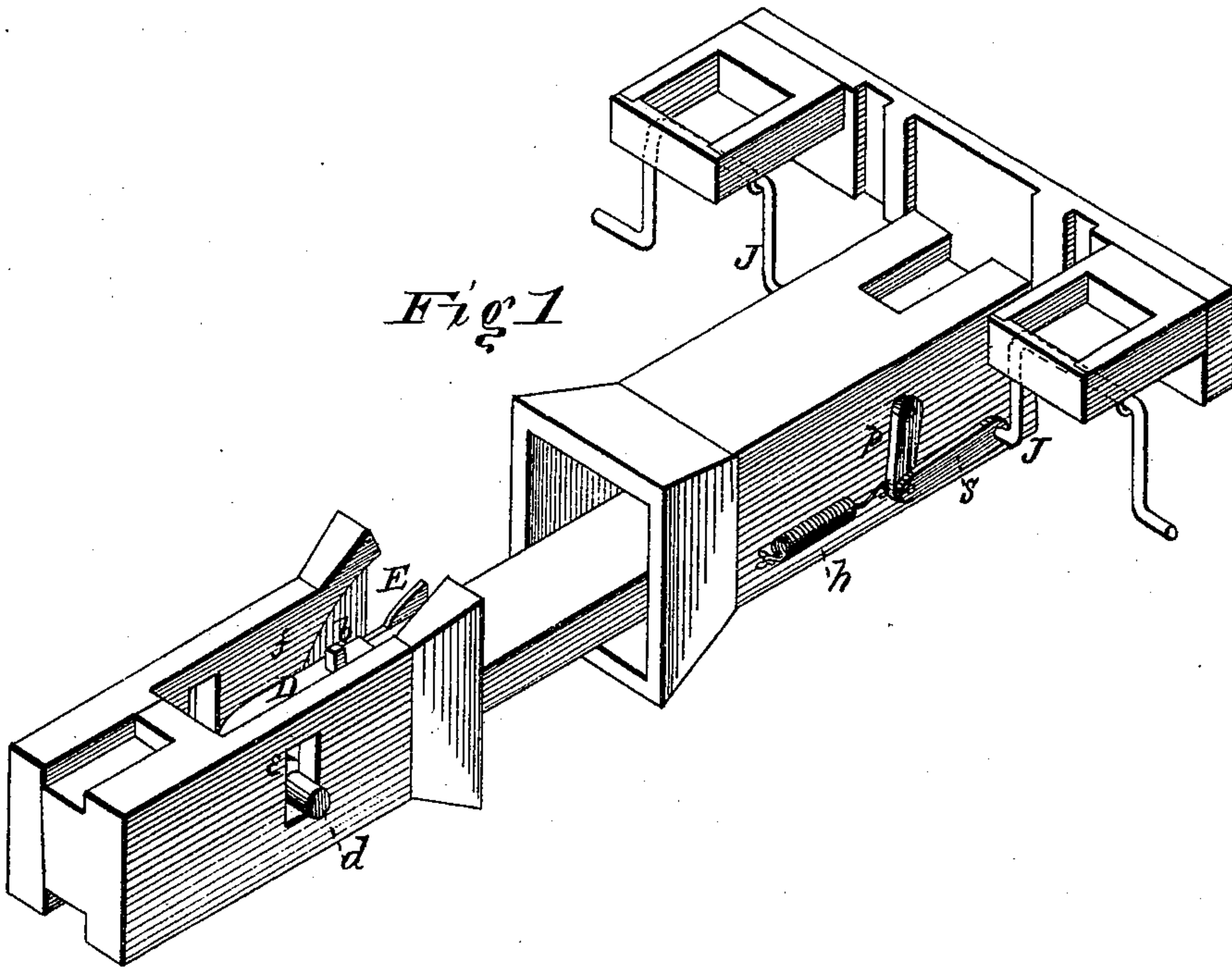


R. LOOMIS.  
CAR-COUPLING.

No. 178,787.

Patented June 13, 1876.



WITNESSES

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# UNITED STATES PATENT OFFICE.

REUBEN LOOMIS, OF GENESEO, NEW YORK.

## IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 178,787, dated June 13, 1876; application filed May 10, 1876.

*To all whom it may concern:*

Be it known that I, REUBEN LOOMIS, of Geneseo, in the county of Livingston and State of New York, have invented certain new and useful Improvements on Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of my invention consists in the construction and arrangement of a car-coupling, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a perspective view of my car-coupling. Fig. 2 is a longitudinal section of the same. Fig. 3 is a detailed section of a part thereof.

A and B represent the two cast-iron draw-heads, attached in any ordinary manner to opposite ends of railroad-cars.

In the draw-head A is fastened, by a bolt, *b*, a wrought-iron loop or link, C, that connects the cars, said link being held in a wrought-iron clevis, D, to the end of which is attached a spiral spring, *a*, to hold the loop or link level.

E E are two side springs, near the outer end of the draw-head A, to hold the loop C in the center, so that when the cars come together the loop will enter the opposite draw-head and be fastened there.

The clevis D is secured in the draw-head A by a horizontal bolt, *d*, the ends of which pass into vertical slots *e* in the sides of the draw-head. These slots are elongated vertically to allow the bolt *d*, that holds the clevis, to rise, so as to depress the end of the loop C that is to be attached to the next car, so as to couple to a car that is lower than the one to which the clevis is attached. By the construction of the clevis the outer end of the loop can be elevated, to couple with a car that is higher.

In the top of the draw-head A is a slot, *f*, so that the clevis and loop can be raised when the cars are uncoupled, and the loop can be turned to one side when it is desired to push

the car onto a switch or elsewhere without having it couple to another car.

This guide-box A is cast whole, except one side, which is cast separate, and fastened to the other part by bolts and screws, and can be taken off when necessary for any purpose.

The opposite draw-head B is cast whole, except the top piece, which is cast separate, and is fastened to the main part by bolts and screws. Across the top of this draw-head, under the top piece, is a wrought-iron yoke, G, working in slots in the sides of the head, to which yoke is attached the pin I, that passes through the loop C, and holds it when the cars are coupled. The loop, on entering this draw-head, pushes the bottom of the pin I back, so as to let the pin through the loop, and the spiral springs *h*, on the outside of the draw-head, attached to the yoke, pull the bottom of the pin forward, thus bringing it down through the loop, and the loop and springs hold it fast.

Behind the pin I the interior of the draw-head B is beveled on both sides to guide the loop, so that the pin will never fail to enter the loop.

On the inside of the top piece to this draw-head B is cut out a space, *i*, to let the pin and yoke turn up, so that it will never fail to uncouple.

In the bottom of the draw-head is a slot, *m*, to prevent the pin catching on the bottom at the time of coupling.

On each end of the yoke G, on the outside of the draw-head, is a crank, *p*, to which the spiral spring *h* is connected; and these cranks are, by rods *s*, connected to crank-shafts J J, mounted in bearings on the end of the car, whereby the cars may be uncoupled from either side without going in between the cars.

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

1. The clevis D, connected in the draw-head A by a horizontal bolt, *d*, passing into vertical slots *e e* in the sides of the draw-head, and having the coupling link or loop C, fastened therein by the bolt *b*, as and for the purposes herein set forth.

2. The combination of the draw-head B, having recess *i* and slot *m*, as described, the



yoke G, with pin I, cranks *p*, and springs *h*, all substantially as and for the purposes herein set forth.

3. The combination, in a car-coupling, of the draw-head A, having longitudinal slot *f* and slots *e e*, the clevis D, spring *a*, link or loop C, secured by bolt *b*, and the side springs E E, all constructed substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of March, 1876.

REUBEN LOOMIS.

Witnesses:

W. H. KELSEY,  
JOHN R. STRONG.