(No Model.)

N. BARR.

CAR COUPLING.

No. 354,008. Patented Dec. 7, 1886.

Fig. 1.

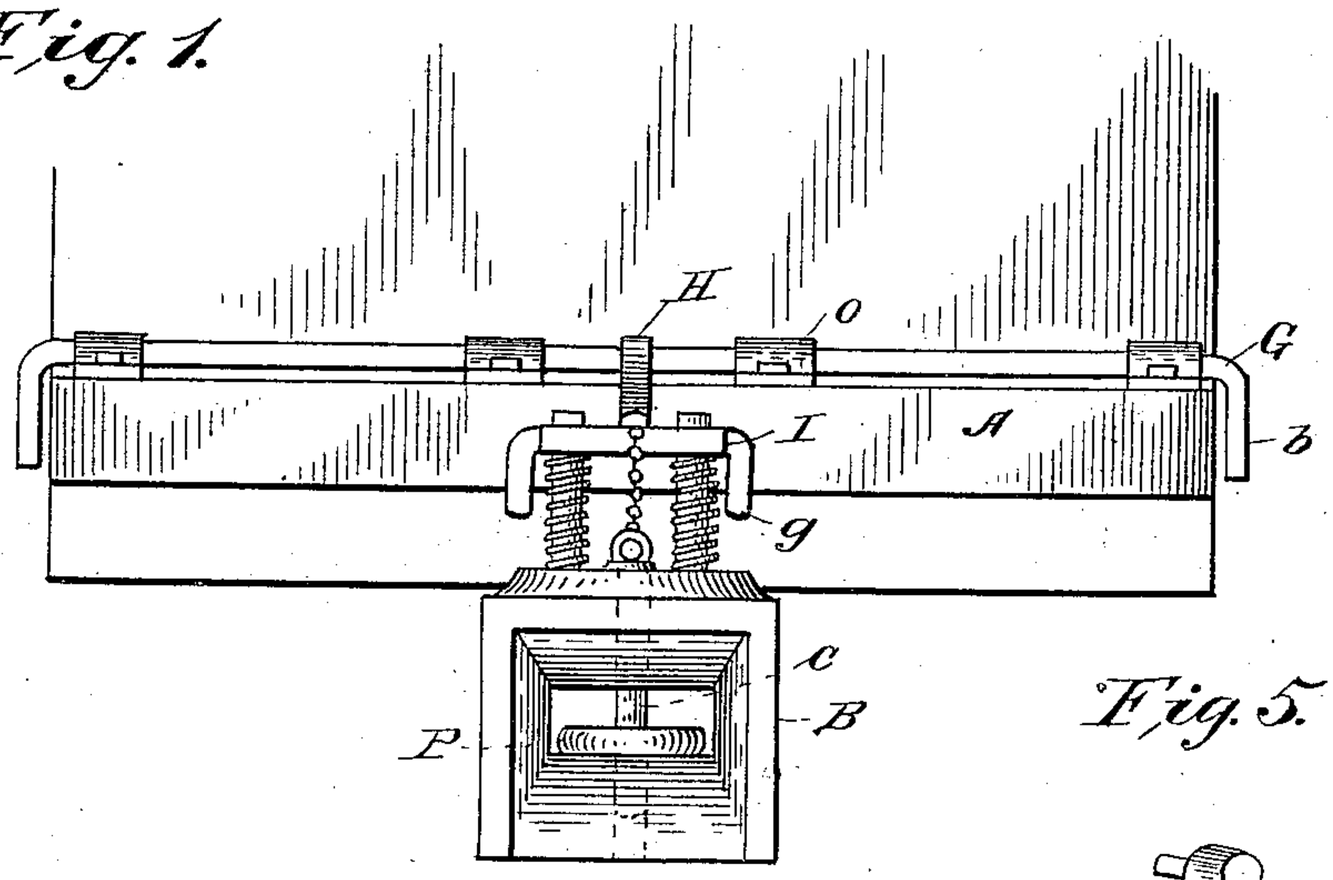


Fig. 5.

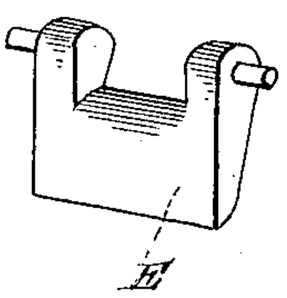


Fig. 2.

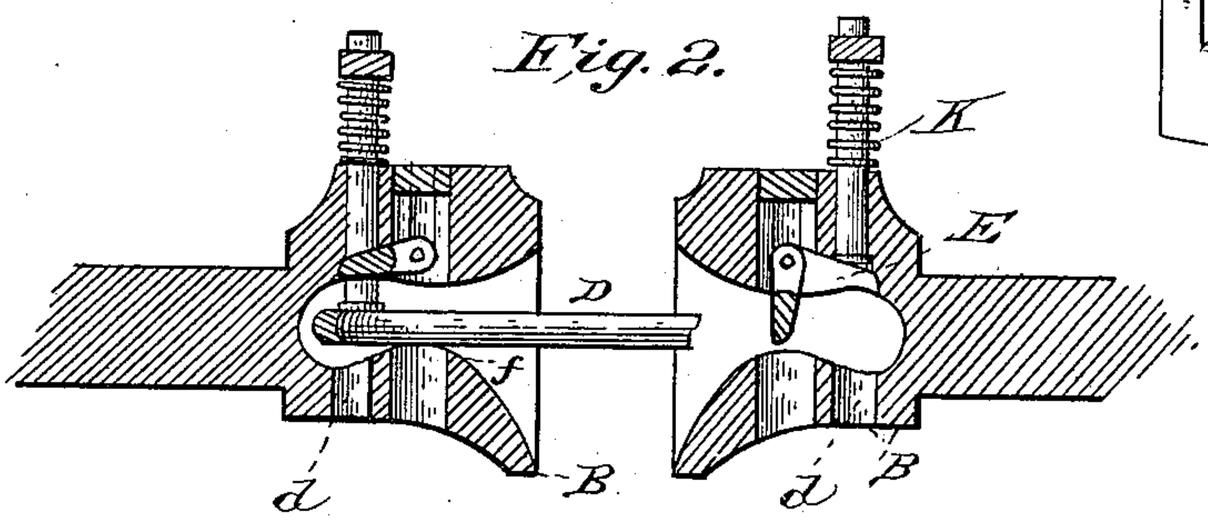


Fig. 3.

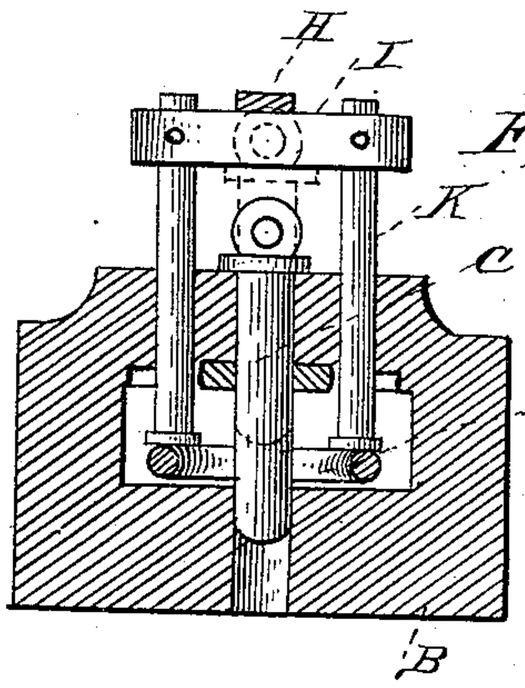
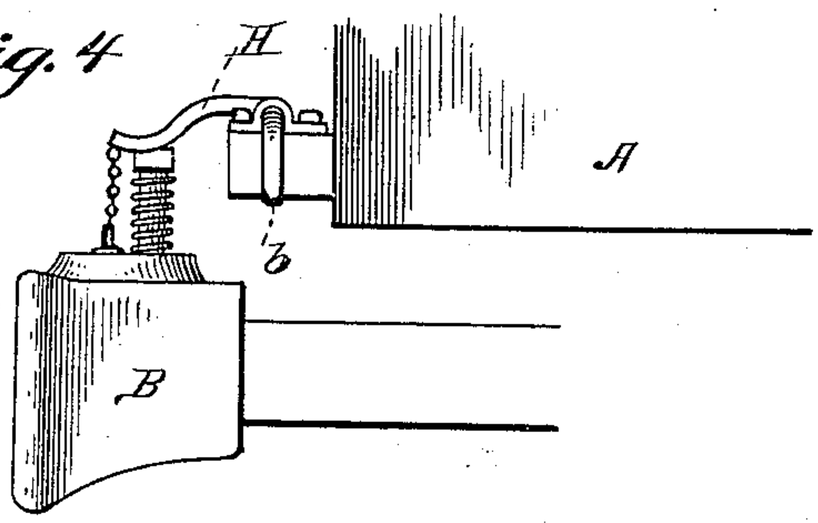


Fig. 4



Witnesses
Harry S. Colver.
Charlie M. Earle.

Inventor
Nicholas Barr.
By Lee & Attorney O'E. Duffy

UNITED STATES PATENT OFFICE.

NICHOLAS BARR, OF CAYUTA, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 354,008, dated December 7, 1886.

Application filed September 24, 1886. Serial No. 214,437. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS BARR, of Cayuta, in the county of Schuyler and State of New York, have invented certain new and useful Improvements in Controllers and Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention has relation to that class known as "link controllers" for draw-heads for railroad-cars, and has for its objects to avoid all danger of accidents from coupling and uncoupling the same, and to safely and readily guide the coupling-link into the draw-head of the next adjacent car, the construction and operation of which will be hereinafter more fully set forth, and which is in the nature of an improvement on patent granted to me June 28, 1881, No. 243,486.

In the patent just named I use only a single controlling-pin, which pin is placed in the rear of the coupling-pin proper, and only acts on the end of the coupling-link, and from various causes it sometimes fails to operate satisfactorily. Therefore to remedy this objection, and to facilitate the coupling of cars with safety, are further objects of my invention.

To this end my invention consists in devices for coupling and uncoupling the cars, and for controlling the position of the link to couple to the next car from either side of the car without getting in between them; and, further, to arrange the coupling-pin to co-operate with the link-controller, by which the drawing out of the pin will also raise the controller, and the controller will prevent the entire withdrawal of the coupling-pin, and also that the pin and controller will under some circumstances operate independently of each other with good results.

Referring to the drawings hereto annexed, Figure 1 is a face view of the end of a car, draw-head, and coupling-pin with my device attached. Fig. 2 represents longitudinal sections of two draw-heads ready to be coupled. Fig. 3 is a transverse section through the draw-head, showing the position of the pin, link, and controller when the cars are coupled. Fig. 4 is a side elevation of the draw-head, having the controller and the device for operating the same; and Fig. 5 is a detached view of the tripping device for holding the link-pin in a raised position.

The same letters will indicate like parts in all the figures, in which A is the car, and B the coupling or draw-head. This peculiar draw-head is covered by my Patent No. 277,828, and will therefore form no part of this invention.

C is the coupling-pin, and D the link, and E the tripping device. On the platform of the car, or other convenient place, I locate a shaft or bar, G, running entirely across the car, working in suitable journals, *a*, said bar having its ends provided with cranks or handles *b*, which extend over the side of the car. At the center of this shaft G, I locate a suitable lever, H, securely fastened to said shaft. To the end of lever H, I attach a chain, which connects it to the coupling-pin, which pin may be drawn up by the lever when it is intended to uncouple the car. The lever H is so formed or bent as to bear on the top of the cross-bar I of the link-controller K, so that turning the shaft downward causes the lever to bear down the link-controller and thus adjust the link to the required position for entering the adjacent draw-head for coupling. The springs L draw back the controllers K after the cars are coupled or uncoupled. If it is desired to dispense with the springs K, the coupling pin head will raise up the controllers and hold them until the coupling-pin again drops. When it is desired to set the link for the next car-coupling, this shaft is turned and the lever adjusts the link, as above stated.

Just back of the position of the coupling-pin I form a recess, *c*, the bottom of which extends below the point where the link rests, for the purpose of permitting the inner end of the link to lower when its outer end is raised. The controllers, forcing the inner end of the link down into this recess *c*, raises the outer end, the rounded bearing-point *f* of the link forming the fulcrum for tilting the link to any required position. Recesses for the bosses of the controlling-pins are formed in the crown of the draw-head, so that they will when raised be entirely out of the way of the coupling-link.

The controller-pins K are preferably inserted from the bottom of the draw-head, which have tapering holes *d* cast in them for that purpose. I have shown these controllers secured by bosses on their lower ends; but it is evident that other means may be employed without departing from the spirit of my invention.

The invention is cheap in first cost and very durable, it being made of but few parts and readily repaired. The parts are interchangeable, and when any are broken or worn they can be replaced by others.

It may sometimes happen that a heavy substance might fall on the controller cross-bar I and break and disable the springs. To prevent this I make the cross-piece I with downwardly-projecting stay-pieces *g*, which prevent any sudden shock injuring the springs, as these projections bear against the solid iron of the draw-head before the springs are brought together.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination of the controller yoke and link with the single straight shaft having a crank-arm at each end and the lever centrally secured to said shaft, as set forth.

2. A link-controller consisting of two rods on each side of the coupling-pin and the yoke or cross-piece, in combination with the draw-head, having curved recess, as shown, the single operating-shaft and the lever secured to said shaft, as set forth.

3. A link-controller having two rods, one on each side of the coupling-pin, and adapted to bear on each arm of the link, in combination with the shaft and lever and cross-piece I, substantially as set forth.

4. A link-controller consisting of the yoke having downwardly-projecting stay-pieces, the single shaft having two crank-arms, as shown, the lever secured to said shaft, and two rods provided with suitable springs and arranged on each side of the coupling-pin, in combination with the draw-head and coupling-pin, said draw-head having a curved recess and bearing-point, as shown and described.

5. The combination of the link-controller having two rods arranged one each side of the coupling-pin and provided with suitable springs, as shown, with the lever and draw-head, said pins being arranged in perforations in the top of the draw-head and are connected and operated in unison by the lever pressing upon the yoke on top of the draw-head, as set forth.

6. The combination of the link-yoke controller, the link, and the coupling-pin arranged in such a manner that raising the pin will raise the controller and the controller will prevent the entire withdrawal of the coupling-pin when raised, substantially as described.

7. The combination, with a draw-head of a railroad-car, of the link-controller consisting of the two pins having bosses, the springs on said rods, the cross-bar I, the lever H, and the shaft G, substantially as set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

NICHOLAS BARR.

Witnesses:
O. E. DUFFY,
JULIUS SOLGER.