WILLIAM RICKARDS, Jr.

Improvement in Car Couplings.

No. 115,522. Patented May 30, 1871.

Fig. 1.

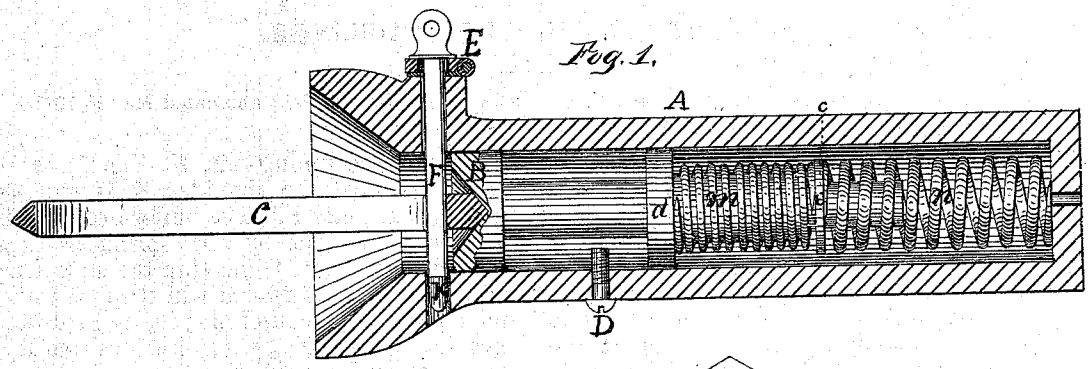


Fig. 2.

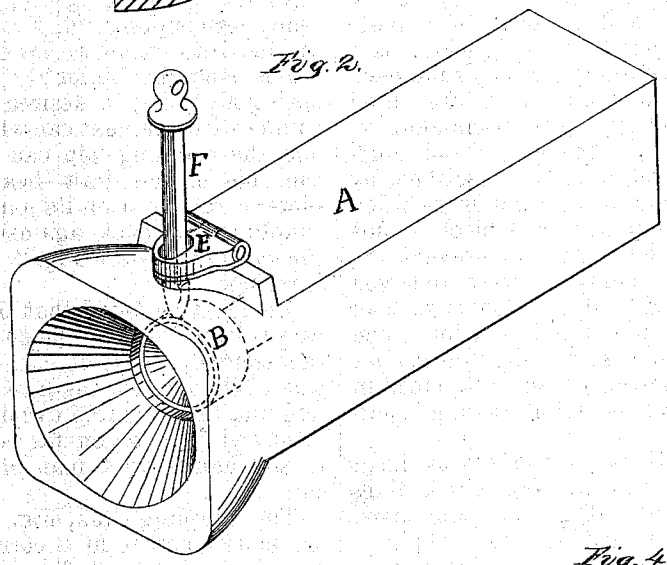


Fig. 4.

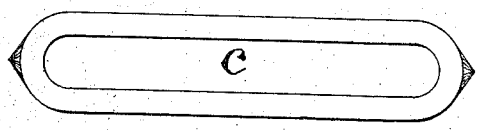


Fig. 5.

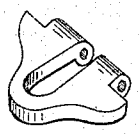
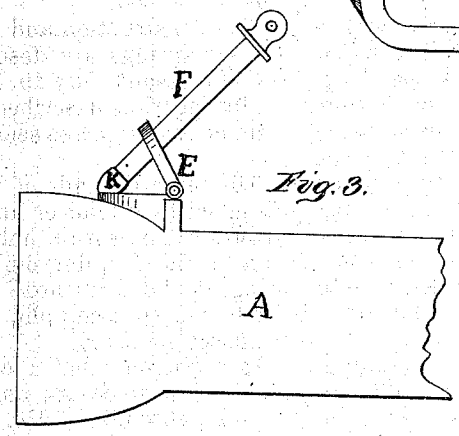


Fig. 3.



Witnesses

Jno. A. Ellis.

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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

WILLIAM RICKARDS, JR., OF FRANKLIN, PENNSYLVANIA.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. 115,522, dated May 30, 1871; antedated May 25, 1871.

To all whom it may concern:

Be it known that I, WILLIAM RICKARDS, Jr., of Franklin, county of Venango, State of Pennsylvania, have invented certain Improvements in Railroad-Car Couplings, of which the following is a specification:

The first part of my invention relates to the attachment, by a joint or hinge to the upper surface of the draw-head, of a plate of iron or other metal, through which is a hole in which the coupling-pin may slide back and forth, and from which it is prevented from being removed by a head or shoulder on its ends, and the combination of the coupling-pin with the plate above described, by passing through and being held in position and guided by this plate; the object of this part of my invention being to prevent the coupling-pin from being entirely removed from the draw-head, and to allow it to lean back or rest in a horizontal position when not wanted in the hole in the draw-head, but in such a way that it may easily be placed in position for coupling by simply raising it perpendicular.

Figure 1 is a sectional view of a draw-head with my invention shown. Fig. 2 is a diagonal view of the same. Fig. 3 is a side view, showing the plate raised and the coupling-pin removed from the hole in the draw-head, and leaning against the platform of the car. Fig. 4 is a view of the link, showing the conical form of its ends.

Letter A represents a draw-head with a spring-buffer. E is the plate attached to the draw by a joint or hinge. F is the coupling-pin. K is the shoulder on the bottom of the coupling-pin to prevent it from being drawn through the hole in the plate E. The coupling-pin is made of flat iron with round edges, such as would be made by rolling round iron of the proper size to the necessary thickness. The shoulder would be made by stoving the end after it has been passed through the plate detached from the draw-head; or the plate can be open back to the joint, as shown in Fig. 5, when the coupling-pin can be put in its place and the joint-pin put in, which will hold it secure. C is the link, held in a horizontal position by being pressed between the reverse cone in the buffer-head B and the coupling-pin F by the spring M.

To describe the action of the plate E I will suppose the coupling-pin F, Fig. 1, to be drawn up until the shoulder K is stopped against the plate E. The buffer-head B will then be forced out by the spring M until stopped by the bolt D meeting the stationary collar *d*. The buffer-head will then be under and support the coupling-pin, as in dotted lines in Fig. 2. If left in this position it is ready for coupling, when a link is forced into the draw-head with a sufficient power to move back the buffer B by compressing the spring M. If it is desired that it shall not couple with the next car which closes to this one, the coupling-pin can be removed from the hole in the draw-head by opening the plate or raising it on its joint and leaning the coupling-pin back against the platform of the car, as shown in Fig. 3, where the plate E is raised.

Should it be found that the platform of the cars is in the way of the coupling-pin as here represented, the joint can be cast on either side of the hole in the draw-head. The coupling-pin, with this improvement, can be drawn or placed in position for coupling by a cord in the hands of a man on the top of the car.

The coupling-link, Fig. 4, shows its conical ends made to fit a corresponding cavity in the end of the buffer-head, which, being made to revolve in its cylinder, will cause the wear of the buffer-head and the end of the link to be even.

The construction and operation of the buffer and springs are described in Patent No. 105,491, issued July 19, 1870.

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

The plate E, made of iron or other metal, attached by a joint or hinge to the top of the draw-head A, with a hole to suit the formation of the coupling-pin, arranged and operating on the draw-head in combination with the bolt or coupling-pin, as described, for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 23d day of September, 1870.

WILLIAM RICKARDS, JR. [L. S.]

Witnesses:

CLARENCE A. RIDGELY,

T. G. LINTON.