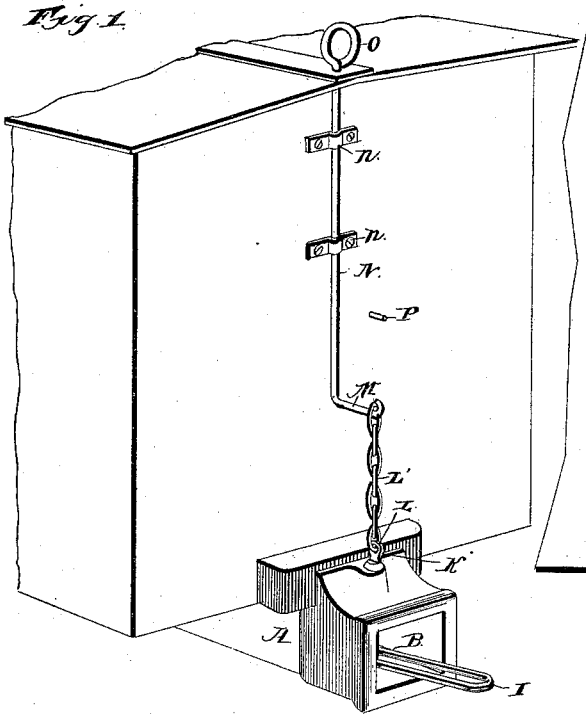
(No Model.)

E. R. YAUGER.

CAR COUPLING.

No. 383,424. Patented May 22, 1888.

Fig. 1.



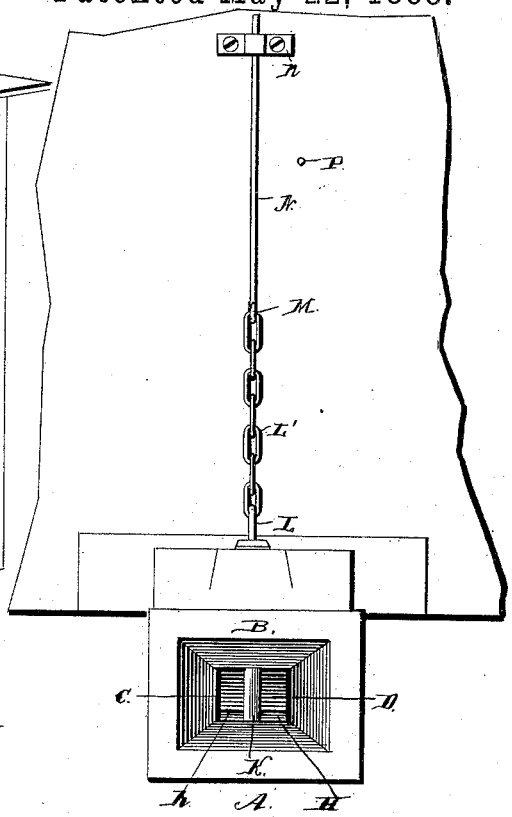


Fig. 3.

Fig. 2.

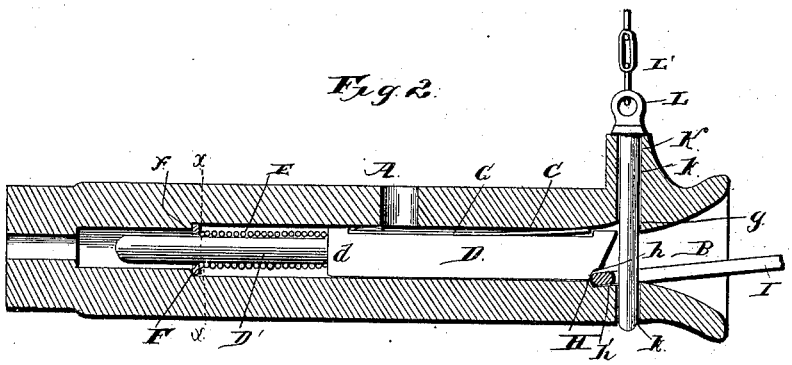
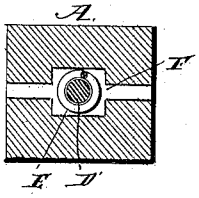


Fig. 4.



Witnesses.
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UNITED STATES PATENT OFFICE.

ELAM ROBERTSON YAUGER, OF ROCKWOOD, TENNESSEE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 383,424, dated May 22, 1888.

Application filed November 3, 1887. Serial No. 254,192. (No model.)

To all whom it may concern:

Be it known that I, ELAM ROBERTSON YAUGER, a citizen of the United States, residing at Rockwood, in the county of Roane and State of Tennessee, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

My invention relates to improvements in car-couplings; and it consists in a certain novel construction and arrangement of devices, fully described hereinafter, and specifically pointed out in the claims.

The improved coupler is illustrated in the accompanying drawings, wherein—

Figure 1 is a perspective view of the end of a car provided with the coupler. Fig. 2 is a longitudinal section. Fig. 3 is a front view. Fig. 4 is a transverse section on line *x x*, Fig. 2.

Referring by letter to the drawings, A designates the body of the draw-head, having the flared mouth B, and the interior of the draw-head is cut out or recessed to form the guide-slot C. The follower D operates in this slot, and is preferably square in section, having a round extension, D′, at the rear end, on which is disposed the coiled spring E. The said spring bears at one end against the shoulder *d*, which is formed at the rear end of the squared portion of the follower, and at the other end against the rigid plate F, which is secured transversely across the body of the draw-head near the rear end. The plate F is provided at the center with an opening or bearing, *f*, in which operates the rear end of the rounded extension D′. On the upper side of the square portion of the said follower is secured a leaf-spring, G, which presses at the free end against the upper side of the recess or slot C. A shoulder, *g*, is formed on the upper side of the recess C near the front end, in the path of the free end of the said spring, and it will be seen that the forward motion of the follower will be limited by this shoulder, as the front or free end of the spring cannot pass beyond the same. The front end of the follower is beveled downward and rearward and provided at the lower edge with a shallow recess, H, of sufficient size to receive the end of the link I. The shoulder, *h*, thus provided (namely, by the recess H) bears on the upper side of the rear end of the link, and as the spring G on the upper side of the follower presses it down firmly against the lower side of the recess or slot C, it will be seen that the outer end of the link will be held firm, and is thus enabled to accurately enter the mouth of the approaching draw-head. The lower side of the recess C under the front end of the follower is slightly inclined or beveled rearward and downward, as seen at *h′*, so that when the front end of the follower presses down upon the rear end of the link, as hereinbefore described, the outer end of the link will be held slightly inclined upward, as clearly seen in the drawings.

As before described, the mouth of the draw-head is flared outwardly, and, consequently, when a link is engaged in a draw-head, it will be capable of considerable lateral swing at the outer end around the pin.

The coupling-pin K is secured or received in vertically-aligned openings *k k* in the upper and lower sides of the draw-head.

The front end of the follower is adapted, when the coupling-link is not in place and the pin is raised, to be projected by the force of its actuating-spring under the opening *k*, which is formed in the upper side of the draw-head, thus preventing the pin from dropping across the opening in the draw-head prematurely. When the link carried by an approaching car is inserted into the draw-head, it strikes upon the beveled front end of the follower D, and is guided by the formation thereof to the recess H, where, being enabled to press directly against the force of the spring E, the follower is depressed or forced back, and the coupling-pin is allowed to fall and complete the coupling by engaging the link.

The upper end of the coupling-pin is provided with a ring, L, in which is secured the lower end of the chain L′, and the upper end of the latter is attached to a horizontally-projecting arm, M, which forms part of a vertical uncoupling-rod, N. The said rod N is adapted to operate vertically in guides *n n*, which are secured to the end of the car or other suitable support, and the upper end of the rod is provided with a ring or suitable handle, O. This rod extends, as shown in the drawings, to the top of the car, within easy reach of the train-hands, and to uncouple the cars it is simply necessary to raise the said rod.

P designates a small stop or stud, which is secured to the end of the car in such a position that when the uncoupling-rod is raised it may be turned to cause its horizontal arm M to engage the said stop and maintain the pin in the elevated position. The object of this is to enable the pin to be locked in the elevated position when it is desired to prevent the coupling being made.

The uncoupling device which I provide is simple, and the operation of the coupler both in coupling and uncoupling is exceedingly direct and reliable, there being no danger of any of the parts failing to operate in the intended and proper manner. Also, the means which I provide for holding the link in the proper position to couple with an approaching car is a great improvement.

Having thus described my invention, I claim—

1. In a car-coupling, the combination, with the draw-head A, of the spring-actuated follower D, operating therein and having a shoulder, *h*, on the front end, the pressure-spring G on the upper side of the follower and bearing against the upper side of the opening in the draw-head, and the link adapted to be engaged at the rear end under the shoulder *h*, as and for the purpose hereinbefore specified.

2. In a car-coupling, the combination, with the draw-head having a recess or slot, C, therein, provided at the front end on the lower side with an upwardly and outwardly beveled portion, *h'*, of the spring-actuated follower D, operating in the recess C, and having a shoulder, *h*, on the front end to pass over the coupling-link, and the spring G on the upper side of the follower, adapted to press the front end of the same down to hold the end of the link depressed, substantially as and for the purpose specified.

3. In a car-coupling, the combination, with the draw-head having a recess or slot, C, therein, and the shoulder *g* on the upper side of the said recess at the front end, of the spring-actuated follower D in the draw-head, having the leaf-spring G on the upper side to bear against the upper side of the recess C and engage the shoulder *g*, to limit the forward motion of the follower, all arranged substantially as specified.

4. In a car-coupling, the combination, with draw-head A, of the coupling-pin K, the vertically-movable uncoupling-rod N, having the horizontal arm M, the chain or other flexible connection between the said pin and the horizontal arm M, and the stud or stop P on the end of the car, adapted to be engaged by the said horizontal arm when the coupling-pin is elevated, substantially as specified.

5. In a car-coupling, the combination, with the recessed draw-head having a shoulder, *g*, of the follower operating in the draw-head and carrying a spring which bears against the said shoulder when the follower is in its extended position, substantially as specified.

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

ELAM ROBERTSON YAUGER.

Witnesses:
ARCH LEE,
J. A. SHADDIN.