

(No Model.)

W. CRANE.  
CAR COUPLING.

No. 301,570.

Patented July 8, 1884.

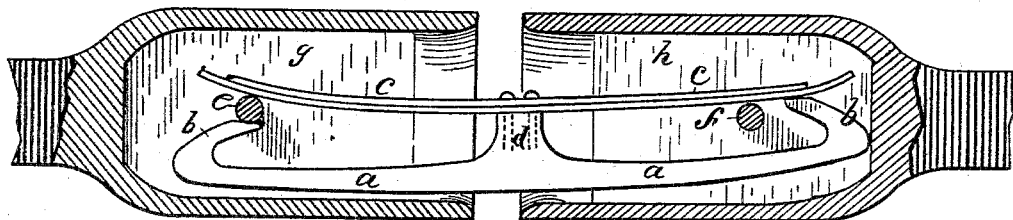


Fig. 1.

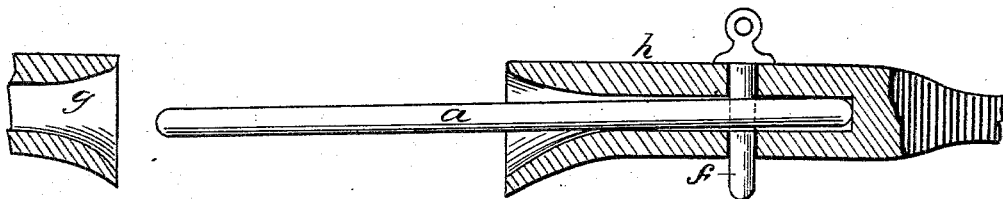


Fig. 2.

Witnesses  
Geo. Hellmuth  
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# UNITED STATES PATENT OFFICE.

WILLIAM CRANE, OF BOSTON, MASSACHUSETTS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 301,570, dated July 8, 1884.

Application filed April 28, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM CRANE, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Car-Coupling Links; and I do hereby declare that the same are fully described in the following specification and illustrated in the accompanying drawings.

The object of this invention is to provide for railway-cars a coupling-link which will open to admit laterally the coupling-pin of an approaching car, and close by a spring action to retain it when admitted.

My invention consists in a link hooked at each end and open at one side, except as closed by a spring secured upon a central ledge of said link. The outer ends of the link are beveled or made oblique, and the ends of the spring project outwardly therefrom, so as to form a mouth or guide for the pin to insure its lateral entrance between them for coupling two cars automatically. The draw-head with which my improved link is used should be adapted to support the link about horizontally as it projects therefrom in readiness to receive sidewise the coupling-pin of the approaching car. I prefer the construction shown in the drawings, the draw-head flaring at its mouth, thence extending back with a vertical space but slightly greater than the thickness of the link.

In the drawings, Figure 1 represents my improved link in plan or top view, with the draw-heads and coupling-pins in horizontal section, showing the link open and receiving the coupling-pin laterally. Fig. 2 is an edge or side view of the link projecting from the draw-head, which is seen in vertical section.

The link has a central portion or body, *a*, and at each end of it a beveled or oblique hook, *b*, extending from the solid side of the central body, about as shown in Fig. 1. These hooked ends are formed in one with the solid or closed side of the link. Midway of the link

*a b* is a transverse ledge or spring-supporter, *d*, preferably forged integral with the body of the link; but it is obvious that such ledge may be made distinct from and firmly secured to the link. The spring *c*, which closes the open side of the link, is preferably composed of two strips of spring-steel, one re-enforcing the other, and both mounted upon the outer face of the ledge *d*. The ends of the spring project beyond and diverge from the points of the beveled hooks *b*, thus forming a mouth or yielding opening, into which the vertical coupling-pin *e* of an approaching car is guided. Such pin crowds back the spring as the two draw-heads *g h* approach each other, and before they actually collide the pin has passed the point of the hook and entered by a sidewise movement into proper working position within the link. The spring closes the opening immediately, and by its reaction brings the link into the direct line of draft.

In uncoupling the cars one pin is simply raised sufficiently to allow the link to draw out of the socket in the usual way.

I claim as my invention—

1. A car-coupling link having beveled hooked ends and an open side, provided with a spring, serving to admit the coupling-pin laterally to the link and retain it therein, the extremities of said spring projecting beyond and diverging from the points of the hooks to form a mouth or guide for the entering pin, substantially as set forth.

2. The described coupling for railway-cars, consisting of the draw-heads *g h* and, coupling-pins *e f*, in combination with the doubly-hooked open link *a b b* and the spring *c*, mounted centrally upon said link, substantially as and for the purpose set forth.

In testimony whereof I hereto affix my signature in presence of two witnesses.

WILLIAM CRANE.

Witnesses:

E. A. PHELPS,  
A. H. SPENCER.