

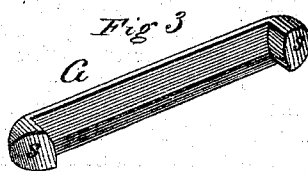
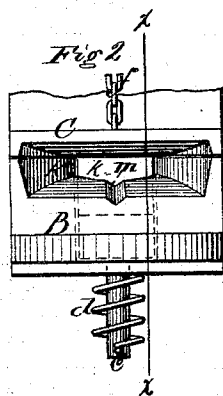
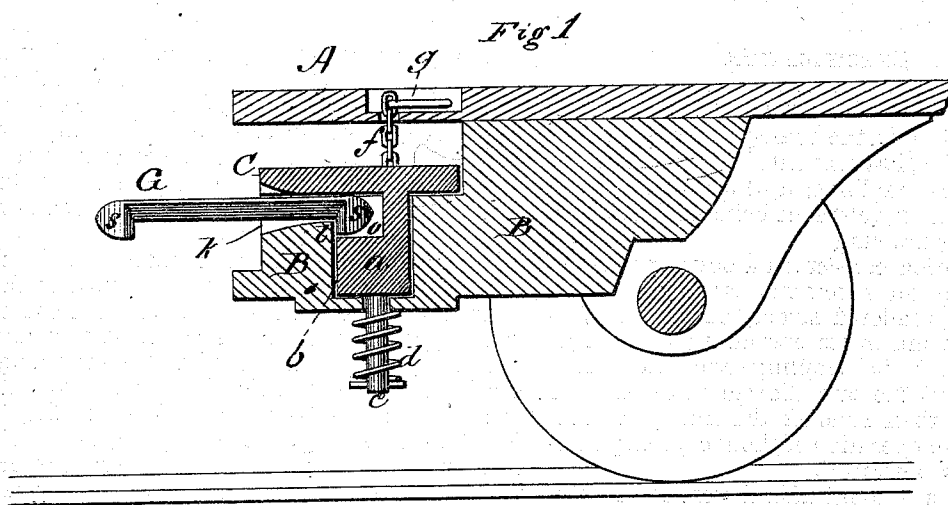
(122.)

A. H. S. DAVIS.

Improvement in Car Couplings.

No. 122,368.

Patented Jan. 2, 1872.



Witnesses.

Harry King
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UNITED STATES PATENT OFFICE.

ALEXANDER H. S. DAVIS, OF FARMINGTON, MAINE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 122,368, dated January 2, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, ALEXANDER H. S. DAVIS, of Farmington, in the county of Franklin and State of Maine, have invented certain Improvements in Car-Couplings, of which the following is a specification, reference being had to the accompanying drawing.

My invention consists in a novel manner of constructing an automatic car-coupling, by which it is rendered strong, cheap, and simple, and certain in its operation; the danger to human life in coupling and uncoupling avoided; and the cars allowed to separate in case one of them runs off the track; the construction and operation of the same being hereinafter fully described.

Figure 1 is a longitudinal vertical section through my coupling in position on a car, the section being taken on the line *xx* of Fig. 2. Fig. 2 is a face or end view of the coupling. Fig. 3 is a perspective view of the coupling-bar or link.

In the drawing, A represents an ordinary car; and B, the draw-head or buffer, which may be connected thereto in any suitable manner. On the front end of the draw-head there is mounted a jaw or plate, C, having on its under side a large square stem or stud, *a*, which fits down into a corresponding hole, *b*, in the draw-head, and holds the jaw in position, while at the same time it permits the jaw to be raised. On the lower end of the stem or stud *a* there is a smaller stem, *c*, which extends down through the head and is provided with a spiral spring, *d*, which serves to hold the jaw C down upon the draw-head. To the top of jaw C there is attached a chain, *f*, which passes up through the platform of the car, and has a ring or handle, *g*, on its upper end, by means of which ring the jaw can be raised by a person standing on the platform. The ring or handle is arranged to fold down into a recess in the platform, so as to leave a smooth even surface and avoid any danger of persons being tripped thereby. In the front end of the draw-head and jaw there is formed a flaring mouth or opening, *k*, extending back to the hole in which the stem *a* slides, so as to leave a shoulder, *l*, on the head, as shown in Fig. 1. Lengthwise in the lower side of the mouth *k* there is formed

a triangular groove, *m*, as shown in Figs. 1 and 2, and in the front side of the stem *a* there is a recess, *o*, which extends down below the shoulder *l*, as shown in Fig. 1. The coupling-bar G, shown in Fig. 3, consists simply of a straight triangular bar having a head or lip, *s*, at each end, and having the two ends beveled or pointed, as shown.

When the coupling-bar is inserted endwise with its lip downward into the mouth of the draw-head, it raises the jaw C, and the end of the bar passes into the recess in stem *a*, and then the jaw drops and the lip of the coupling-bar locks behind the shoulder *l* and prevents the withdrawal of the bar, as shown in Fig. 1. The jaw C bearing on the coupling-bar holds it down in the groove *m*, and causes it to extend straight out from the head, so that when another car is brought up the bar will enter its draw-head with perfect certainty. When the cars are to be uncoupled the operator mounts the platform and lifts the handle *g*, and thereby raises the jaw C, the recess *o* of which raises the end of the coupling-bar off from the shoulder, so that it can be withdrawn. When desirable, the chain *f* may be passed over a pulley and out to one side of the car, so that it can be operated by a person standing by the side of the car; or the chain may be extended to the top of the car, so as to be operated by a person thereon. It is obvious that various other arrangements of the chain or of rods, or of rods and levers, would answer for raising the jaw; but, as they constitute no part of my invention, a description of them is unnecessary. In case a car provided with my coupling runs from the track the coupling-bar will be turned up so as to readily escape from the coupling, and thereby prevent the other cars from being dragged from the track by the first one.

Having thus described my invention, what I claim is—

The straight triangular link G, in combination with the jaw C and groove *m* in the draw-head, substantially as and for the purpose set forth.

ALEXANDER H. S. DAVIS.

Witnesses:

BENJ. F. ATKINSON,
JOTHAM S. GOULD.

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