No Model.)

G. B. GANO.

CAR COUPLING.

No. 301,584. Patented July 8, 1884.

Fig. 1.

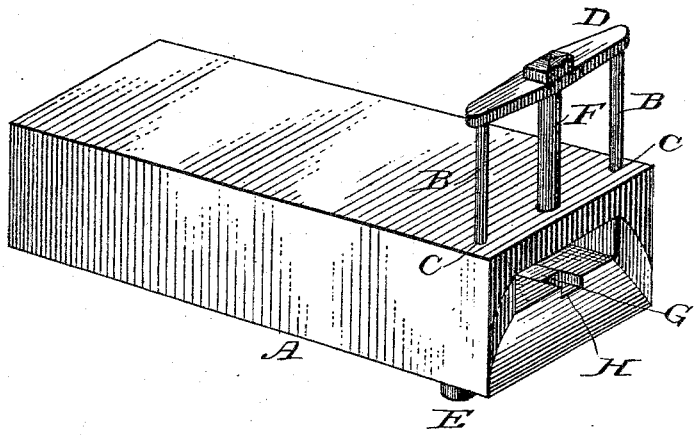
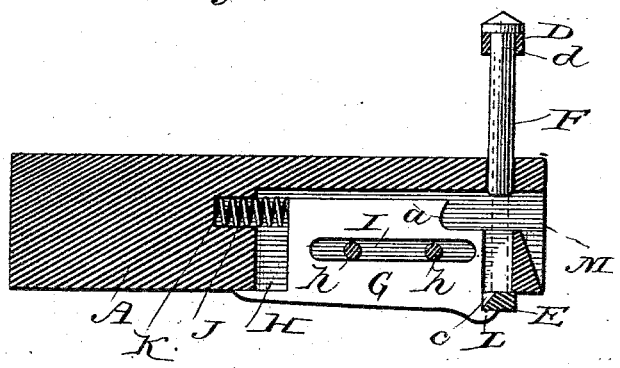


Fig. 2.



WITNESSES
Jas. L. Halley
W. a. Craig

Garrett B. Gano,
INVENTOR
By H. J. Ennis
Attorney

UNITED STATES PATENT OFFICE.

GARRETT B. GANO, OF EASTON, MARYLAND.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 301,584, dated July 8, 1884.

Application filed September 4, 1883. (No model.)

To all whom it may concern:

Be it known that I, GARRETT B. GANO, a citizen of the United States, residing at Easton, in the county of Talbot and State of Maryland, have invented certain new and useful Improvements in Automatic Car-Couplers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has relation to car-couplers; and the object of the invention is to provide a device of this kind that will automatically couple cars in a simple and effectual manner without any danger of the loss of life or limb; and to that end the novelty consists in the construction of the same, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings, similar letters of reference marked thereon indicate like parts of the invention.

Figure 1 is a perspective, and Fig. 2 a vertical sectional view, of the device.

A is the draw-head, and is secured to the car in the usual manner.

B B are vertical guides, working freely in guide-holes C C in the forward end of the draw-head. These vertical guides B B are connected at their tops by a yoke, D, and at their bottoms or lower ends by a cross-bar, E, so that the whole forms a rectangular frame having a vertical movement. The yoke D has a hole, *d*, through which the coupling-pin F passes, and said pin is supported in position by the head of the pin resting on the yoke.

G is a slide working in a slot, H, in the center of the draw-head on the pins *h h* in the slot I.

J is a spiral spring in the recess K of the draw-head, and said spring projects forward to normally press the slide G outwardly.

L is a dog on the forward lower end of the slide G, which engages with the cross-bar E to hold it, the guides B B, yoke D, and coupling-pin F in position for coupling.

The parts being in the position shown in Fig. 2, the link from the adjoining car, entering the opening M, strikes the end *a* of the slide G and forces it back. This releases the dog L, which frees the cross-bar E and yoke D, which allows the coupling-pin F to fall by gravity, passing through the link, and thereby coupling the cars. To uncouple, the yoke D is raised until the cross-bar E engages the dog L, which holds the parts in the first position—that is, ready for the act of coupling. The cross-bar E, where it comes into contact with the dog L, is beveled at *c* to facilitate engaging with said dog.

If desired, a cord or chain may be attached to the yoke D and extend to the top of the car, so that the yoke and pin may be raised from that point; or a lever may be used, so as to operate the pin from the sides of the car.

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

In a car-coupler, the draw-head A, having guide-holes C C, and slot H, provided with pins *h h* and spring J, in combination with the slide G, having dog L, and the cross-bar E, having beveled portion *c*, and provided with vertical guides B B, and yoke D, having hole *d* to support the coupling-pin F, as and for the purposes set forth.

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

GARRETT B. GANO.

Witnesses:

CHARLES J. GANO,

JOHN SATTERFIELD.