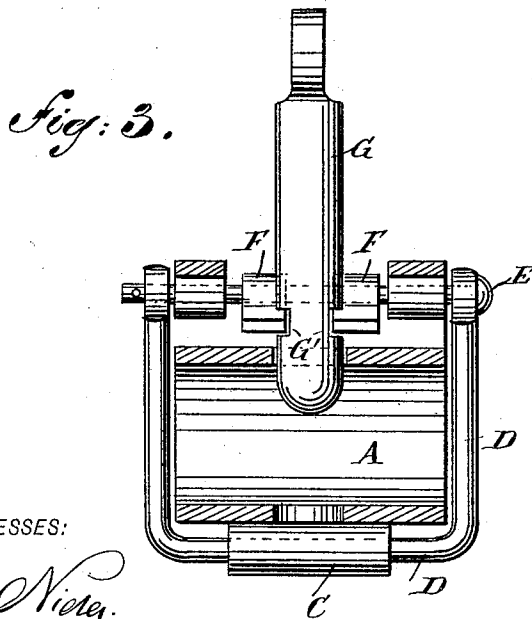
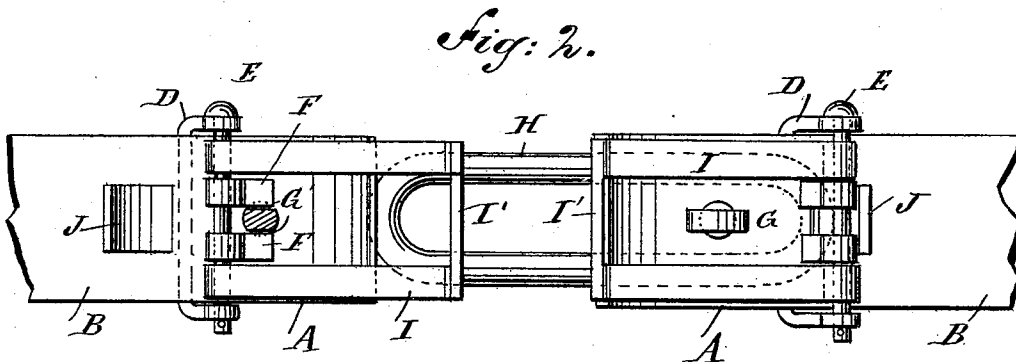
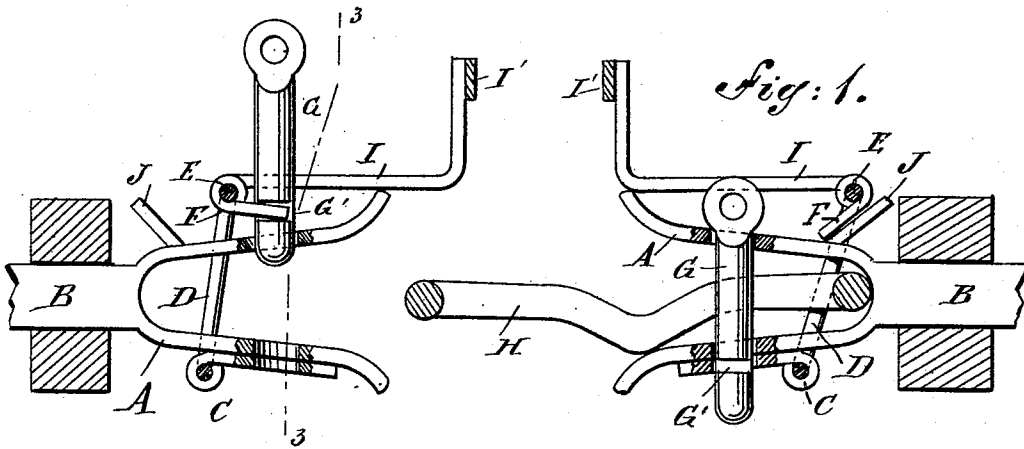


(No Model.)

L. W. HOUGHTON.
CAR COUPLING.

No. 487,568.

Patented Dec. 6, 1892.



WITNESSES:

Chas. Nier
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UNITED STATES PATENT OFFICE.

LEVI WARREN HOUGHTON, OF BATH, MAINE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 487,568, dated December 6, 1892.

Application filed August 16, 1892. Serial No. 443,190. (No model.)

To all whom it may concern:

Be it known that I, LEVI WARREN HOUGHTON, of Bath, in the county of Sagadahoc and State of Maine, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved car-coupling, which is simple and durable in construction, very effective in operation, and arranged for automatic coupling.

The invention consists of arms mounted to swing and adapted to support the coupling-pin and an arm for moving the said swinging arms and supported on the draw-head to be engaged by a like arm on the opposite draw-head of the approaching car.

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement, showing two couplings approaching one another for coupling two cars. Fig. 2 is a plan view of the same, and Fig. 3 is an enlarged transverse section of the same on the line 3 3 of Fig. 1.

The draw-head A of the draw-bar B is preferably made in the shape of a fork, the members of which are located one above the other, as plainly shown in Figs. 1 and 3. On the under side of the lower member of the draw-head A is pivoted at C the middle part of a U-shaped arm D, extending with its ends on the sides of the draw-head, the upper free ends of the said side arms being connected with each other by a pin E, carrying two short arms F, adapted to engage recesses G', formed on opposite sides of the coupling-pin G, adapted to pass through suitable apertures in the fork members of the draw-head A, as will be readily understood by reference to the drawings, so that the said coupling-pin engages and locks the coupling-link H.

The notches G' are arranged near the lower end of the coupling-pin G, so that when the arms F engage the said recesses the lower end of the coupling-pin extends but a short dis-

tance into the opening formed between the two fork members of the draw-head A, as shown in the drawings.

On the pin E is hung an L-shaped arm I, which extends over the top member of the draw-head A at the front end thereof, so as to ride or slide forward and backward on the draw-head. The vertical part I' of the said L-shaped arm I extends a suitable distance beyond the front end of the draw-head A at the time the pin G is supported on the arms F, as above described, and shown in Fig. 1. The rearward swinging motion of the arms D F, the pin E, and the arm I is limited by the arms F striking a projection J, secured on top of the draw-head, as will be readily understood by reference to Fig. 1, at the right-hand coupling.

The operation is as follows: When the several parts are in the position shown in Figs. 1 and 2, then the coupling-link H is held in one draw-head and is locked therein by the respective coupling-pin G, which is now in a lowermost position, as plainly shown in the right-hand coupling of the said figures. The other draw-head to be entered by the coupling-link H has its coupling-pin G supported by the arms F, as above described, the vertical part I' of the arm I extending beyond the front edge of the draw-head. Now when the two cars approach each other the coupling-link H enters the draw-head with the raised link G and the vertical parts I' of the arms I come in contact, so that the outwardly-extending arm I is pushed rearwardly, whereby a swinging motion is given to the arm D, so that the arms F are withdrawn from the notches G' of the pin G and the latter by its own weight drops down into a locking position on the draw-head to lock the already-entered coupling-link in place. The two cars are then coupled.

It is understood that the device can be readily applied to draw-heads of the ordinary construction—that is, draw-heads closed on the sides instead of the fork shape shown.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. In a car-coupling, the combination, with a pivoted U-shaped arm carrying on its free end a pin, of supporting-arms held on the said

pin and adapted to engage notches formed in the sides of the coupling-pin to support the latter and an arm hung on the said pin and adapted to project beyond the draw-head to
5 be engaged by a like arm on the approaching draw-head, substantially as shown and described.

2. In a car-coupling, the combination, with a pivoted U-shaped arm carrying on its free
10 end a pin, of supporting-arms held on the said pin and adapted to engage notches formed in the sides of the coupling-pin to support the

latter, an L-shaped arm hung on the said pin and adapted to project beyond the draw-head to be engaged by a like arm on the approach-
15 ing draw-head, and a fixed projection on the draw-head to limit the rearward swinging motion of the said arms, substantially as shown and described.

LEVI WARREN HOUGHTON.

Witnesses:

ALFRED JAESE,
GEORGE NEAGLE.