(No Model.)

C. H. TAYLOR.

CAR COUPLING.

No. 561,836. Patented June 9, 1896.

Fig. 1.

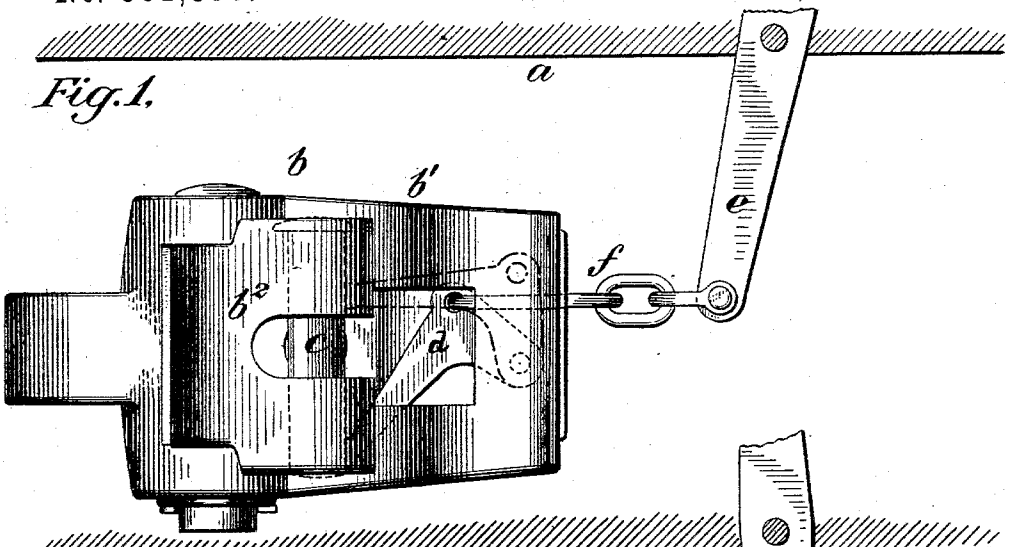


Fig. 2.

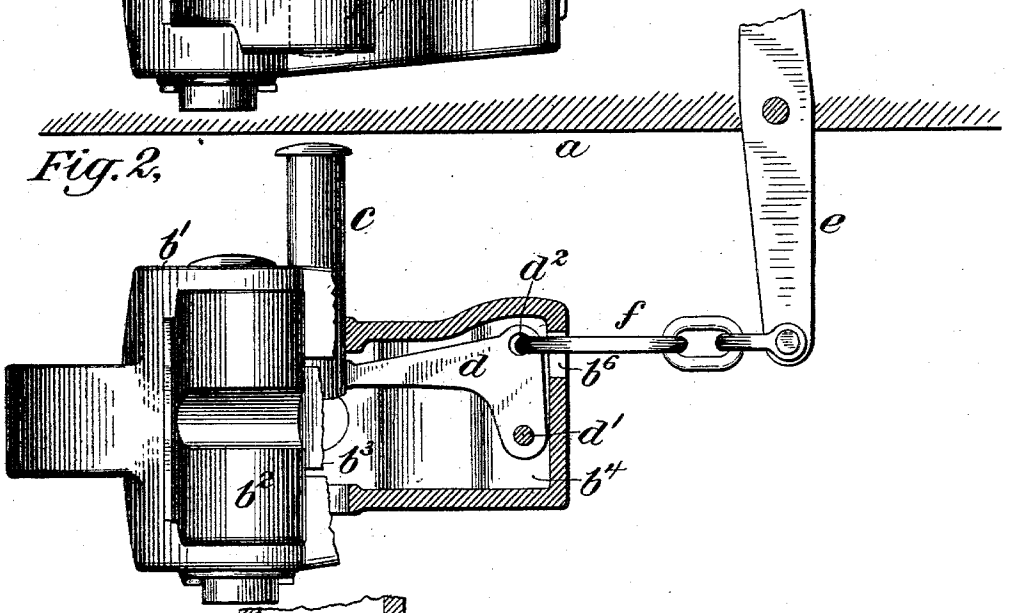
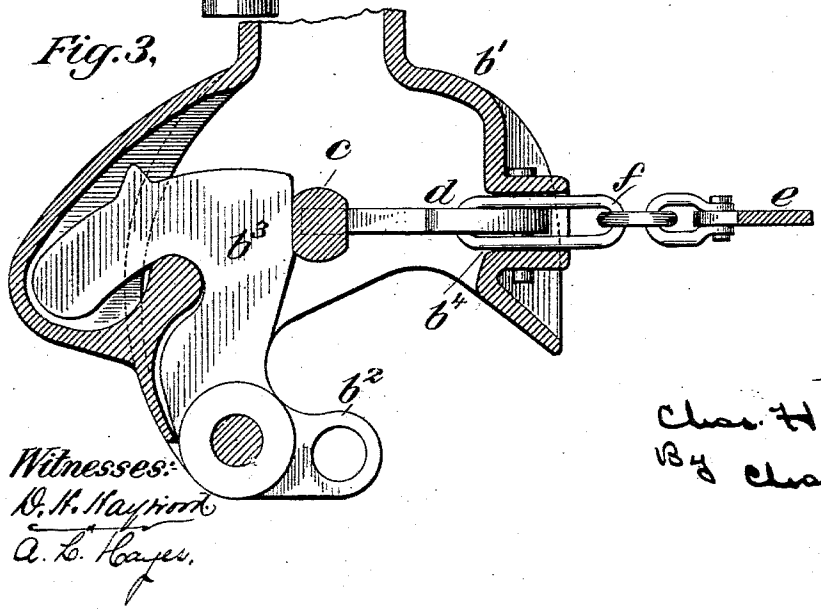


Fig. 3.



Witnesses:
D. H. Mayhood
A. L. Hayes.

Inventor:
Chas. H. Taylor
By Chas. H. Dane
his atty

UNITED STATES PATENT OFFICE.

CHARLES H. TAYLOR, OF SOUTH ORANGE, NEW JERSEY.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 561,836, dated June 9, 1896.

Application filed April 27, 1895. Serial No. 547,304. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. TAYLOR, a citizen of the United States, and a resident of South Orange, Essex county, and State of New Jersey, have invented new and useful Improvements in Car-Couplers, of which the following description, taken in connection with the drawings herewith accompanying, is a specification.

This invention relates particularly to the uncoupling mechanism, or the means for operating the coupling-hook-locking device, whereby the coupling-hook may be released to disconnect or uncouple with a connecting-coupler; and the invention consists in the peculiar construction and arrangement of the several parts forming such mechanism, as will hereinafter be set forth in detail, and pointed out in the claims.

Referring to the drawings, Figure 1 represents a front or end elevation of a car-coupler and its uncoupling mechanism embodying my invention, showing the position of the parts with the coupling-hook in a closed and locked position. This view also illustrates a section of the car-platform with the operating-lever, (partly broken away,) which forms part of the uncoupling mechanism pivoted thereto. Fig. 2 shows the device illustrated in Fig. 1 with the coupling-hook in an open and unlocked position, the draw-head being partly in section and the inner arm of the coupling-hook broken away; and Fig. 3 is a plan view of the device with the draw-head and coupling-pin in section.

To explain in detail, *a* represents a section of a car-platform; *b*, a car-coupler in position beneath the same; *b'*, the draw-head of the coupler; b^2, the horizontally-rotating coupling-hook pivotally supported in the draw-head, and *c* the vertically-movable locking-pin supported and guided in a suitable opening in the draw-head, adapted for engaging with the inner arm b^3 of the coupling-hook to lock the latter in a closed position.

The above parts are of usual construction and not of my present invention.

In order to raise the locking-pin from its position in engagement with the hook and thereby allow the latter to be opened, I have provided a bell-crank lever *d*, which, as illustrated in the drawings, is pivotally supported at the end of its vertical arm, at *d'*, in a recess or space b^4 formed to receive the same in one side of the draw-head at a point opposite the locking-pin, as more clearly shown in Fig. 3. The opposite end of the lever or the end of its horizontal arm extends into an opening formed to receive the same in one side of the pin *c*. The lever, thus arranged, is connected at its point of angle, at d^2, with the ordinary pivoted lever *e*, secured upon the platform of the car, through the medium of a suitable connection, which, in the instance shown, consists of a series of links *f*. To elevate the locking-pin, the operating-lever *e* is moved in the proper direction to operate the lever *d* and raise the end of its horizontal arm and the connecting-pin to the position shown in Fig. 2 and in dotted lines in Fig. 1, in which position of the pin the hook b^2 is allowed to be moved to an open position, as shown.

The lever *d*, when operated to raise the locking-pin as described, is moved in such position that its arms will lie substantially parallel with the adjacent inner walls of the draw-head and in close proximity thereto, as clearly shown in the drawings, and thus leave the space or opening in which the inner arm of the hook moves free and unobstructed. The lever *d*, being arranged as described, is also enabled to be supported and operated wholly within the inclosed space in the draw-head, the advantage of which is obvious.

The side walls of the recess in which the vertical arm of the lever *d* is pivotally supported and in which it is located when the lever is in a raised position also serve as a guide and lateral support for the lever when being operated.

The connection uniting the lever *d* with the operating-lever *e* passes through an opening b^6 in the wall of the draw-head provided for that purpose, as more clearly shown in Fig. 2.

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

1. In a car-coupler, the combination with the draw-head supporting a horizontally-moving coupling-hook and a vertically-movable locking-pin, of a bell-crank lever located and operating wholly within the draw-head, pivotally supported at the end of its vertical arm,

and connected with the locking-pin at the end of its horizontal arm, and means connecting with the same at, or adjacent to, its point of angle, whereby it may be operated to raise the pin and be located with both arms thereof in close proximity to the wall of the draw-head, whereby a free and unobstructed space may be provided for the passage of the inner arm of the coupling-hook, substantially as described and for the purpose set forth.

2. In a car-coupler, the combination with the draw-head supporting a coupling-hook and a vertically-movable locking-pin, the said draw-head being provided with a recess in one wall thereof on its inner side, of a bell-crank lever located wholly within the draw-head, pivotally supported at the end of its vertical arm within said recess in the wall of the draw-head, and connected with the locking-pin at the end of its horizontal arm, and operating means connecting with said lever at, or adjacent to, its point of angle, substantially as described and for the purpose set forth.

CHAS. H. TAYLOR.

Witnesses:
CHAS. F. DANE,
A. L. HAYES.