

(No Model.)

C. C. FIELDS.
CAR COUPLING.

No. 475,040.

Patented May 17, 1892.

Fig. 1.

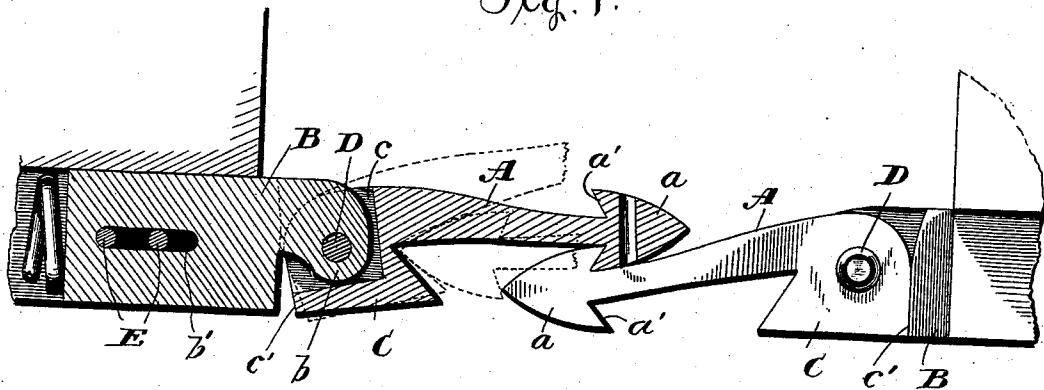


Fig. 2.

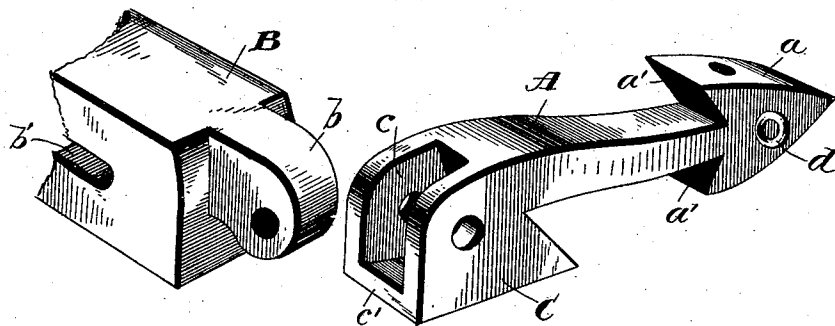
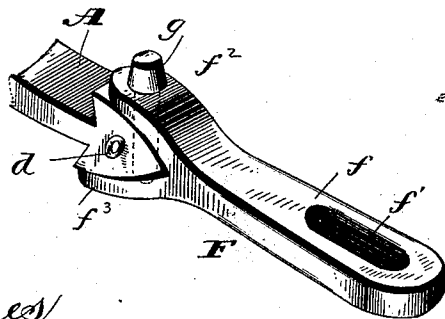


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES CLINTON FIELDS, OF NEW HAVEN, WEST VIRGINIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 475,040, dated May 17, 1892.

Application filed February 15, 1892. Serial No. 421,600. (No model.)

To all whom it may concern:

Be it known that I, CHARLES CLINTON FIELDS, a citizen of the United States, residing at New Haven, in the county of Mason and State of West Virginia, have invented certain new and useful Improvements in Car-Couplers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The design of my invention is to provide an improved automatic car-coupler which shall be thoroughly reliable in its action and at the same time quite simple in construction, easy of operation, and capable of use in connection with cars equipped with the common pin-and-link coupler.

To these ends the invention consists in the improved car-coupler constructed and operating as hereinafter specified and claimed.

In the drawings, Figure 1 is a longitudinal section showing two of my couplers connected together. Fig. 2 is a perspective view of the coupling-hook and a portion of the draw-bar, separated; and Fig. 3 is a perspective view showing my device for using the coupler in connection with the ordinary pin-and-link coupler.

Reference now being had to the details of the drawings by letter, A designates my coupling-hook, pivoted to the draw-bar B in the manner hereinafter described and having at its front end an arrow-shaped head *a*, whose rear walls *a'* are considerably undercut or inwardly inclined, so that when engaged by the corresponding portion of an adjoining coupling-hook there will be no liability of accidental separation. The hook at its rear end has an enlargement C, whose front wall inclines downward and forward, and constituting, with the adjacent under side of the body portion of the hook, a shape similar to the head *a*. Thus constructed when two cars are brought together the head of the hook that happens to engage the other hook so as to raise and pass under the same will abut against said enlargement, as shown in dotted lines, and transmit the shock to a coiled buf-

fer-spring provided, as is usual, in the rear of the draw-bar B. By providing the abutting surfaces as described there is no liability of injuring or breaking the hook, such as would exist were the abutting surface an abrupt one, because the blow upon the head is not at its point, but upon its upper and lower sides.

The upper side of the hook A, over and partly in the enlargement C, but not extending entirely down through the same, is provided with a recess *c*, into which a reduced portion *b* of the draw-bar B extends. A pin D, passing through this extension and through the adjacent sides of the hook A, pivotally secures the latter to the draw-bar. By not cutting the recess *c* down entirely through the enlargement C a shoulder or abutment *c'* is left to engage the draw-bar end and thus prevent the hook A from falling below a horizontal plane, although the same is capable of free and easy upward movement, either to allow the hooks to pass by each other, as when coupling, or to permit the raising of the upper one to uncouple by disengaging their arrow-heads.

For the purpose of uncoupling from a place of safety an eye *d* is attached to the hook at or near its front end, to which a chain or cord may be attached and passed for manipulation either to the top or side of the car where box-cars are used; or, if the coupler is applied to platform-cars, to a convenient point on the platform. If desired, other means may be employed to raise the hook, it being understood that I do not limit myself to those mentioned.

The draw-bar B is placed between blocks or pieces on the under side of the car, being attached thereto by bolts E, which pass through a slot *b'* or slots therein and through said blocks, which permits such longitudinal movement of the draw-bar as may be necessary in consequence of the impact of an adjoining car.

To adapt my device for use with the ordinary pin-and-link coupler, I have provided a link F, having a horizontal member *f*, designed to enter the ordinary draw-head and having an opening *f'* for the passage of the coupling-pin, and two diverging members *f*² *f*³ to engage the upper and lower sides, respectively, of the arrow-head *a* and having openings in

line with each other by means of which said link may be connected to the head through the instrumentality of a pin *g*, which also passes through a vertical opening provided in said head.

5 From the foregoing description it will be seen that my coupler is quite simple in construction; that the coupling of the hooks is bound to be effected although there may be a
10 difference in the height of the two cars, as it is immaterial whether one arrow-head or the other is on top; that means are provided to prevent damage to a head by its impact against a hook of an opposite car, and that the novel
15 link which I have provided adapts my coupler for satisfactory use with cars provided with the ordinary pin-and-link coupling.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—
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1. A car-coupler consisting of a pivoted hook having an arrow-shaped head and having in

the rear of said head an abutting surface for a similarly-shaped head conforming in shape thereto, substantially as described.

2. The combination of a coupling-hook having an arrow-shaped head at its front end and an enlargement at its rear end with an inclined front side that forms with the adjacent surface of the hook an impact surface for the similarly-shaped head of another coupling-hook, the recess in such rear end of the hook extending partially into the said enlargement but not through its bottom, thereby forming a shoulder or stop, the draw-bar having a reduced portion to enter such recess, and the pivot-pin connecting the draw-bar and coupling-hook.

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

CHARLES CLINTON FIELDS.

Witnesses:

G. L. BUSH,

SAM. J. CAPEHART.