

(No Model.)

A. C. MARTIN.
CAR COUPLING.

No. 502,735.

Patented Aug. 8, 1893.

Fig. 1.

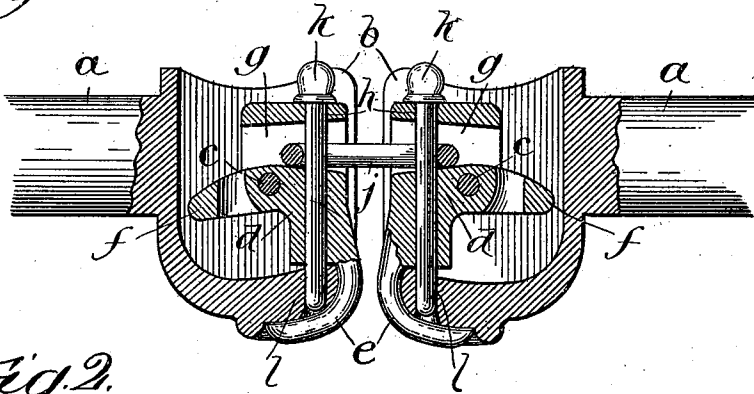


Fig. 2.

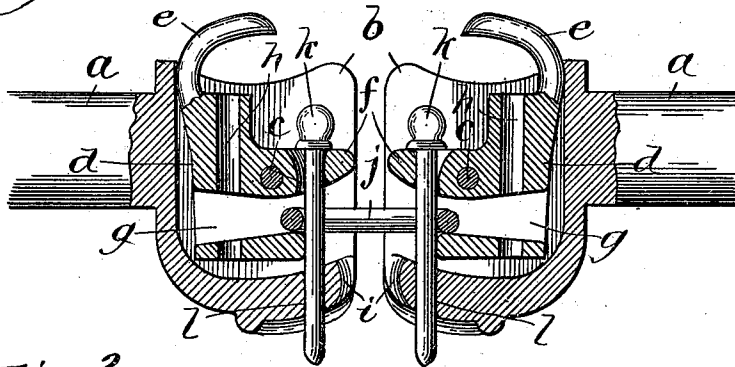


Fig. 3.

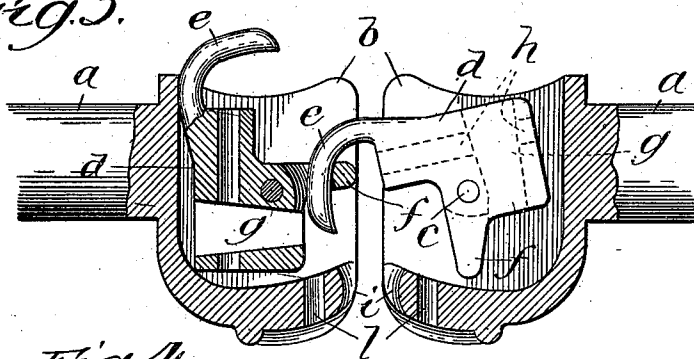
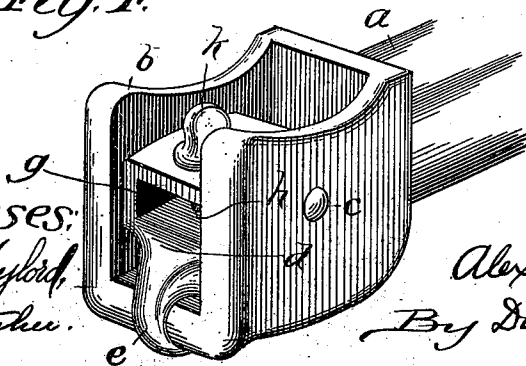


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALEXANDER C. MARTIN, OF CHICAGO, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 502,735, dated August 8, 1893.

Application filed April 15, 1893. Serial No. 470,550. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER C. MARTIN, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Couplers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which corresponding letters of reference in the different figures indicate like parts.

The object of my invention is to provide a car-coupler which may be operated with safety from the side of the car, the appliances for coupling being a hook and loop which are so constructed and arranged that the ordinary link and pin may be employed in connection therewith and adapted to cars of varying height;—all of which is hereinafter more fully described and definitely claimed.

Figure 1. of the drawings represents a vertical, longitudinal sectional view of a car-coupler embodying the features of my invention, the same being shown as it appears when employed in connection with a link and pin. Fig. 2. is a like view showing the coupling hooks in a reverse position and likewise coupled with a link and pin. Fig. 3. is a like view showing the manner of coupling by means of the hook and loop, and Fig. 4. is a perspective view of a draw-head showing the hook therein as it appears when in its normal position.

Referring to the drawings, *a* represents the usual draw-bar, integral with which is the draw-head *b*. The latter is open at the top and front, and within the opening, pivoted at *c*, is an elbow-shaped coupling device *d*, which is provided with a hook *e*, a loop *f*, a link-socket *g*, and a pin-socket *h*. The socket *g*, is arranged substantially at right angles to the hook, while the pin-socket *h*, is substantially parallel with the hook and at right angles or substantially so, to the axis of the socket *g*.

As is obvious, the primary purpose is to dispense with the use of a link and pin whenever possible; and to use instead, the hook *e*, and loop *f*, in the manner shown in Fig. 3. The hook may be operated by means of any suitable appliance at the side of the car which will insure safety to the operator; but in case

it should become necessary to connect my improved coupler with any other form of draw-bar, then the usual link and pin may be employed. If the draw-bar with which the connection is to be made is unusually high, then the hook *e* may be thrown down as shown in Fig. 1, in which case the body of the hook is received in a notch *i*, better shown in Figs. 2 and 3, formed in the face of the draw-head, which enables the outer face of the hook to be flush with that of the draw-head. By this means the hook is protected from being broken by the impact of the draw-heads. The link *j*, may then be placed in the socket *g* and secured by placing the pin *k*, in the socket *h*. Should, however, the bar with which the coupling is to be made be lower, then the coupling device *d*, may be thrown back as shown in Fig. 2, when the link *j*, may be inserted beneath the loop *f*, and the pin *k*, inserted through said loop and into a socket *l*, formed in the bottom of the draw-head as clearly shown in Fig. 2, which socket is in vertical alignment with the inner face of the loop *f*.

From the foregoing it will be seen that a link-and-pin coupling may be readily made with my improved coupling device when the difference in height of the draw-bars is very great; while, at the same time, its use as a safety coupling is in no wise impaired.

Having thus described my invention, I claim—

1. The combination in a car-coupler, of a coupling device consisting of a hook and loop integral with each other and pivoted within the draw-head, a link-socket formed within said coupling device substantially at right angles to the body of the hook, and a pin-socket having its axis substantially at right angles to that of said link-socket.

2. The combination with a draw-head, of an elbow-shaped coupling device pivotally mounted therein, said device having a hook upon one part and a slotted arm or loop upon the other, a link-socket therein arranged substantially at right angles to the body of the hook, a pin-socket substantially at right angles to said link-socket, and a socket in the bottom of the draw-head, whereby a detachable link may be used either above or below the pivotal point of said elbow-shaped coupler, substantially as described.

3. The combination with a draw-head, of an elbow-shaped coupling device pivoted therein having a hook upon one part and a loop upon the other, link-socket *g* and pin-socket *h*, substantially as described.

4. The combination with a draw-head open at the top and front, of an elbow-shaped coupler having a hook upon one part and a link upon another, of the link-socket *g*, pin-socket *h*, and the cut-away portion *i*, whereby the hook may be protected from impact while the link is used in connection with the socket *g*.

5. The combination with a draw-head, of a pivoted hook-and loop coupling device and double link sockets, one of which is formed in the pivoted coupling device itself and the other in the bottom of the draw-head beneath the loop, substantially as described.

6. A car-coupler consisting of two elbows pivotally secured in opposite draw-heads which are open at the front and top respectively, each of said elbows having a hook upon the extremity of one arm and a corresponding loop or opening at or near the extremity

of the other, said elbows being provided with link-sockets therein substantially at right angles to the bodies of the hooks, pin-sockets arranged substantially at right angles to the axes of said link-sockets, and pin-sockets in the bottoms of said draw-heads in alignment with said loops, substantially as set forth.

7. The combination with a draw-head, of the pivoted coupling device *d*, having loop *f*, a space beneath for the reception of a link, link and pin sockets *g h*, respectively, and a pin-socket in the bottom of the draw-head and in vertical alignment either with the pin-socket *h* or loop *f*, according as said coupling device is in one or the other of its extreme positions, substantially as described.

In testimony whereof I have signed this specification, in the presence of two subscribing witnesses, this 11th day of April, A. D. 1893.

ALEXANDER C. MARTIN.

Witnesses:

D. H. FLETCHER,

E. UTTING.