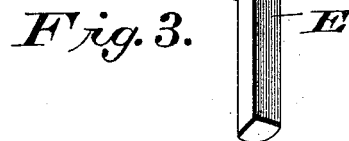
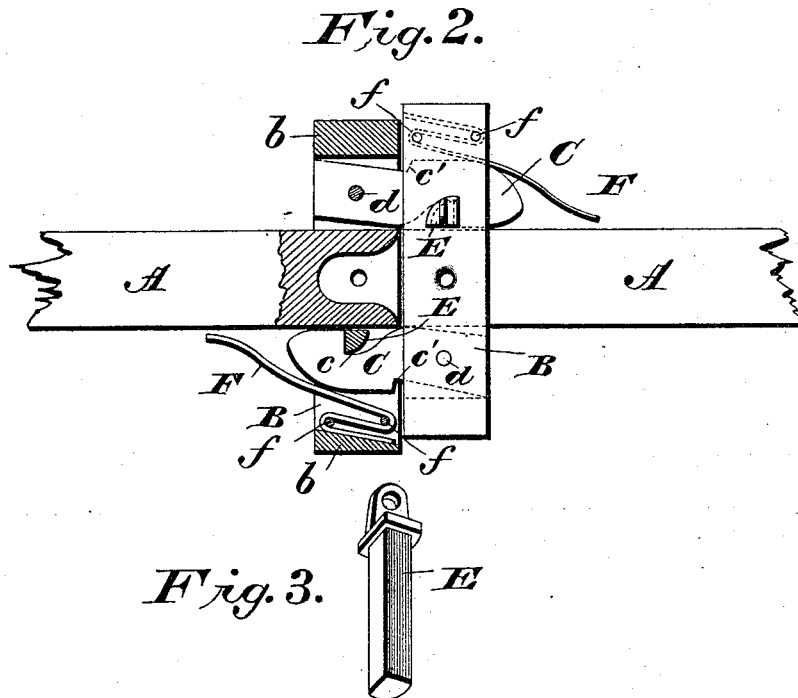
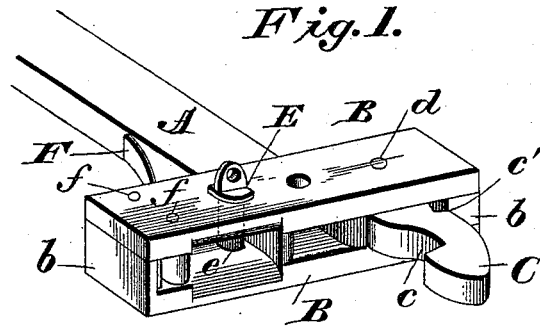


(No Model.)

S. WOODWORTH.  
CAR COUPLING.

No. 455,141.

Patented June 30, 1891.



Witnesses  
L. S. Elliott.  
C. M. Johnson

Seibert Woodworth.  
Inventor

by *[Signature]*  
Attorney.

# UNITED STATES PATENT OFFICE.

SEIBERT WOODWORTH, OF ELLINWOOD, KANSAS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 455,141, dated June 30, 1891.

Application filed April 2, 1891. Serial No. 387,433. (No model.)

*To all whom it may concern:*

Be it known that I, SEIBERT WOODWORTH, a citizen of the United States of America, residing at Ellinwood, in the county of Barton and State of Kansas, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare the following to be 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 letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in automatic car-couplings of that class technically known as "hook and pin."

The object of the invention is to provide a coupling by means of which cars may be automatically connected and readily disconnected, the parts being constructed so that the ordinary link-and-pin coupling can be used in connection therewith; and it consists in the construction and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view. Fig. 2 is a plan view partly in section. Fig. 3 is a detail view of one of the pins detached.

A refers to the draw-bar of the coupling, which is attached to the car in the usual manner, the front end being recessed, within which an ordinary link may be placed when the device is used as an ordinary link-and-pin coupling.

To the forward end of the draw-bar A are rigidly attached, either by bolts or by being integrally formed therewith, cross-pieces B B. Between the pieces are placed blocks *b*, which form recesses, as shown. In one of these recesses is loosely pivoted a hook C, which is located to permit a horizontal swinging movement upon its pivot *d*. This hook is provided with a rounded outer edge and a recess *c*, having a straight front wall, which is adapted to engage with a pin secured in the opposite draw-head, this pin lying in peculiar openings formed in the cross-pieces B B adjacent to the draw-bar. The hooks C have shoulders

*c'*, which abut against the blocks *b* to limit the outward movement of said hooks, while excessive inward movement is prevented by the inner edge abutting against the draw-bar or the rear outer edge against the block *b*.

To near the outer ends of the cross-pieces B B, beyond the apertures or perforations *e*, are vertical pins *f f*, placed on a line with each other, which are adapted to engage with the bent portions of the spring F, said spring being adapted to engage with the outer edges of the hooks and throw the same into engagement with the pins E. The spring F has its forward end bent back upon itself to pass around both of the pins, while the front free end may abut against one of the blocks *b*. The coupling-pins E have two straight faces and a third on the segment of a circle, so as to provide a rounded portion against which the hooks will abut to ride over the same and engage with the straight face. By providing a pin of this construction the notched portion of the hook will be located adjacent to the draw-bar A, and as near the center thereof as practical when provision is made for the ordinary link and pin. It will be obvious that when the draw-heads come together, the pins being properly placed therein, the cars will be automatically coupled. To uncouple the cars, it will be necessary to remove the pins. The springs hold the hooks constantly in engagement with the vertical pins and permit the draw-heads to have a slight lateral movement.

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

1. In a car-coupling, the combination of a pair of draw-heads constructed substantially as shown and provided with horizontally-movable hooks, pins E, having straight and rounded faces, springs F, carried by the draw-heads and adapted to bear upon the horizontally-movable hooks for holding the same in engagement with one of the angular faces of the coupling-pins, substantially as set forth.

2. In combination with a draw-head constructed substantially as shown and provided with laterally-extended portions, within one of which a hook is pivoted, a spring F, secured to the opposite extended portion and provided with an end which is bent upon itself to pro-

vide forwardly and rearwardly extending members, said spring being held in place by vertical pins *ff*, substantially as set forth.

3. The combination, in a car-coupling, of  
5 the draw-heads constructed substantially as shown and provided with horizontally-swinging hooks C, springs carried by the opposite end of the draw-head, said draw-head having an aperture with one rounded edge and two  
10 straight edges to receive pin E, said pin having straight edges and a rounded edge, substantially as set forth.

4. A coupling-pin for hook-and-catch car-

couplings, having two straight faces at right angles with each other and a third face on the  
15 segment of a circle, in combination with the coupling-hooks which are adapted to ride over the curved or rounded portion of the coupling-pin and engage with one of the straight faces thereof, substantially as set forth. 20

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

SEIBERT WOODWORTH.

Witnesses:

LOUISE CLEMM,  
GUSTAV TOEPKE.