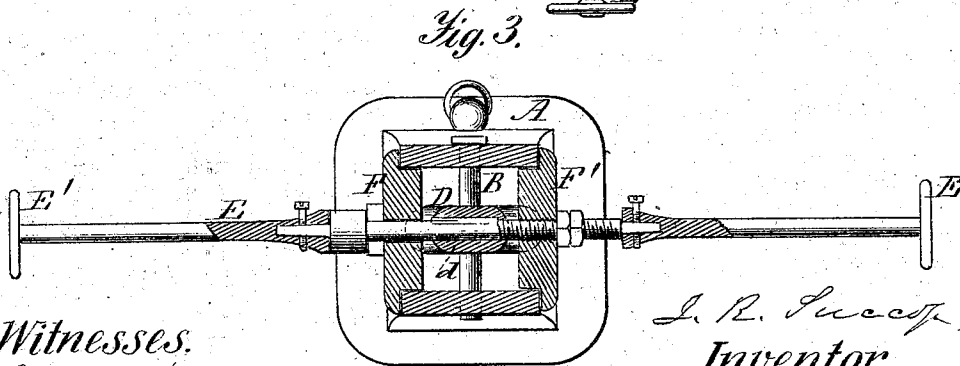
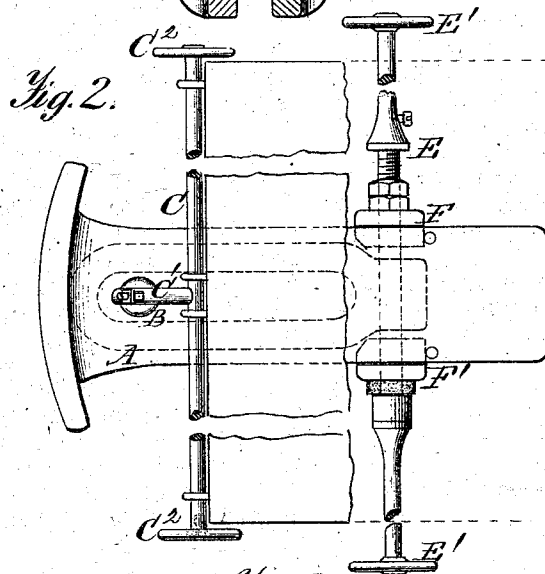
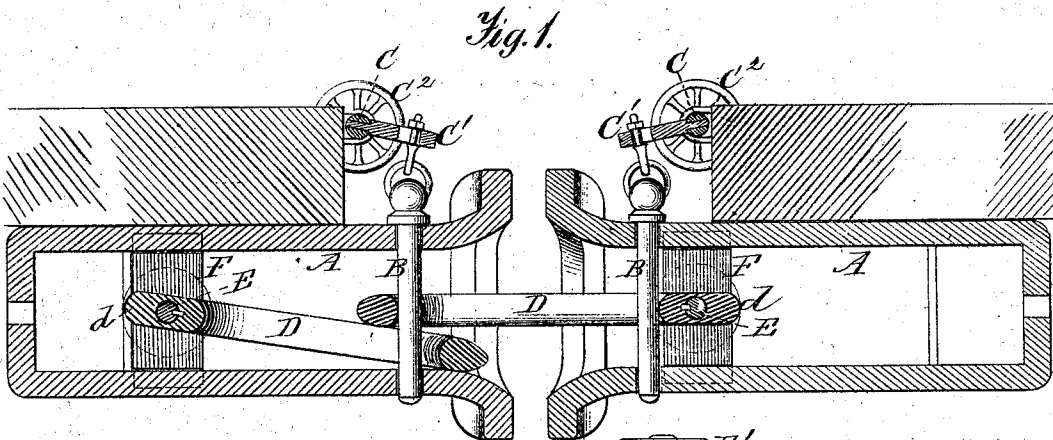


J. R. SUCCOP.

Car-Couplings.

No. 136,011.

Patented Feb. 18, 1873.



Witnesses.
A. Ruppert.
B. Edw. C. C.

J. R. Succop
Inventor.
D. P. Holloway & Co
Attys

UNITED STATES PATENT OFFICE.

JOHN R. SUCCOP, OF BIRMINGHAM, PA., ASSIGNOR OF TWO-THIRDS HIS
RIGHT TO JOHN KREIN AND WILLIAM SUCCOP, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 136,011, dated February 18, 1873.

To all whom it may concern:

Be it known that I, JOHN R. SUCCOP, of Birmingham, in the county of Allegheny and State of Pennsylvania, have invented certain Improvements on Car-Couplings, of which the following is a specification:

The nature of my invention consists in permanently securing the inner end of an ordinary coupling-link to a transverse horizontal shaft, which reaches with its respective ends to the opposite sides of the car to afford the means for lifting the link in the operation of coupling, and which has its bearings in sliding boxes having sufficient play to admit of the retraction of the link wholly within the draw-head to prevent any injury to it and its adjuncts by the draw-head or buffer of the adjacent car.

Figure 1 is a longitudinal sectional elevation of my improved car-coupling. Fig. 2 is a plan view of a single draw-head. Fig. 3 is a transverse section thereof.

The same letters of reference are used in all the figures in the designation of identical parts.

A refers to an ordinary draw-head with open sides, which may be attached to the framework of the car in any approved manner. The coupling-pin B, which is received, as usual, in the pin-holes in the top plate and bottom plate of the draw-head, is linked to an arm, C¹, fast on the horizontal shaft C, which rests in bearings on the sill of the platform, projecting at each end slightly beyond the same to permit the operation of cranks or hand-wheels C², by which it is oscillated to lift and drop the coupling-pin. The link D is enlarged at one end by forming a boss, d, upon it for the reception of the lifting-shaft E, to which it is permanently fastened. The lifting-shaft passes horizontally through the boss of the link, and has its bearings in the boxes F and F', which are respectively fitted between the top plate and bottom plate of the draw-head, and have narrow flanges bearing against the edges thereof, as best seen in Fig. 3. These boxes slide upon the draw-head, permitting the link, when used to couple two

cars together, to operate in the usual manner, no strain coming upon the lifting-shaft. When not in use the link is drawn entirely into its draw-head by sliding the boxes, by means of the lifting-shaft, to the rear the required distance. Means may be provided to hold the link and its adjuncts against being projected by the joltings of the car. Pins f f' limit the rearward movement of the boxes F F'. The respective ends of the lifting-shaft reach to just beyond the car-body upon each side, and are provided with cranks or hand-wheels E'.

In the operation of coupling the link is first projected by sliding the boxes F F' outward by means of the shaft E. The protruding loose end of the link is then lifted by oscillating the lifting-shaft, and held so until the pin upon the adjacent car has been dropped through it, the entire operation being performed by a person standing at the side of the cars.

The lifting-shaft may be constructed in sections, as shown in the drawing, or in any other preferred manner; and, instead of resting in sliding boxes, it may be sustained and move between stationary guides upon the sides of the draw-head; but in all cases the lifting-shaft must have sufficient sliding or lateral movement to admit of the retraction of the link entirely within the draw-head.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a car-coupling, the combination of an ordinary coupling-link and a sliding lifting-shaft, to which the inner end of the link is rigidly secured, substantially as specified.

2. The combination of the link D, lifting-shaft E, and sliding boxes F F', substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN R. SUCCOP.

Witnesses:

D. P. HOLLOWAY,
B. EDW. J. EILS.