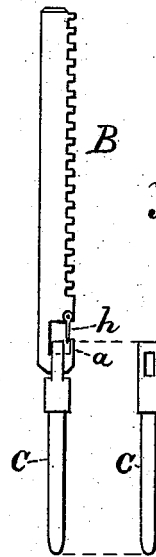
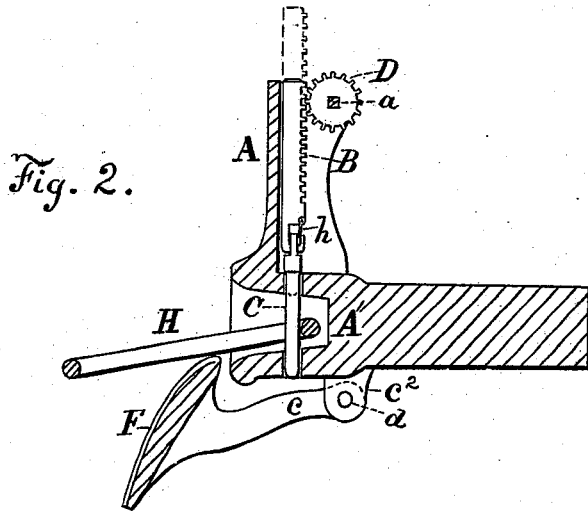
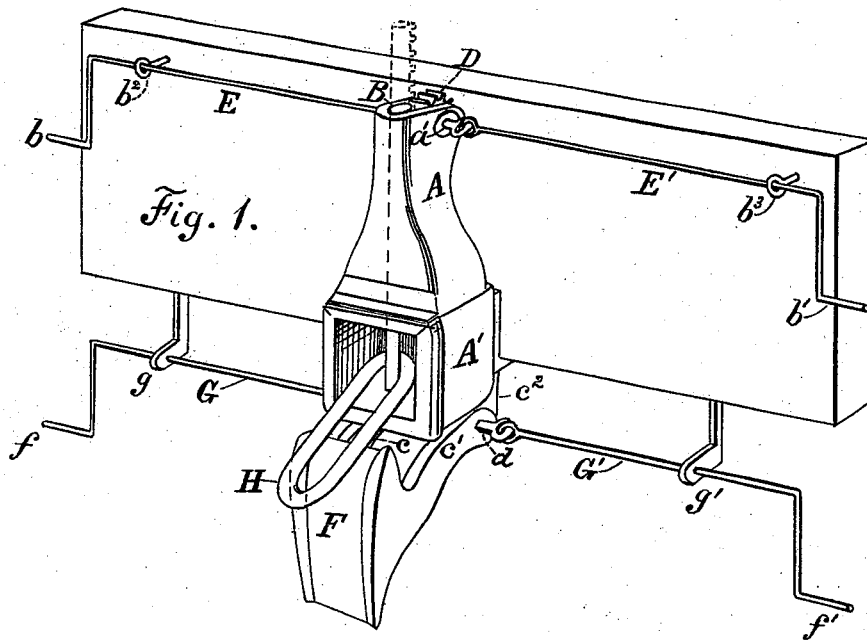


J. W. SNAPP.  
Car-Coupling.

No. 210,215.

Patented Nov. 26, 1878.



Witnesses:

N. A. Daniel,  
P. B. Turpin.

Inventor:

James W. Snapp  
by W. Burris  
Attorney.

# UNITED STATES PATENT OFFICE.

JAMES W. SNAPP, OF JASPER, TENNESSEE, ASSIGNOR OF ONE-THIRD HIS  
RIGHT TO WILLIAM E. DONALDSON, OF SAME PLACE.

## IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. 210,215, dated November 26, 1878; application filed  
May 9, 1878.

*To all whom it may concern:*

Be it known that I, JAMES W. SNAPP, of the city of Jasper, in the county of Marion and State of Tennessee, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, which 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.

Figure 1 is a perspective view. Fig. 2 is a vertical section through the standard, draw-head, and link-guide. Fig. 3 shows the toothed bar and coupling-pin detached.

My invention relates to devices for operating the ordinary link-and-pin car-coupling without danger of injury to the operator; and the invention consists of a toothed bar connected at the lower end to the upper end of the coupling-pin, and adjusted to slide vertically in a slot in a standard on the draw-head by means of a pinion arranged in the slot and operated by rods connecting with the shaft of the pinion, extending to either side of the car, and provided with cranks, and of a link-guide attached to the draw-head and operated by connecting-rods and cranks, as hereinafter fully described.

A is a standard on the top of, and preferably cast solid with, the draw-head A'. This standard is provided with a slot in the inner side the entire length of the standard, to receive the toothed bar connected to the coupling-pin, and adjusted to slide vertically in the slot of the standard.

B is the toothed bar, having a slot and hook, *a*, on the lower end to connect with the upper end of the coupling-pin C, which is provided with an eye to receive the hook on the bar.

D is a pinion, adjusted in the upper part of the slot of the standard on a shaft, *a'*, having its bearings in the standard, so that the cogs on the pinion engage with the teeth of the bar B, as shown in the drawings.

E E' are rods, the inner ends of which are

connected to the shaft *a'* by loops through the eyes in the ends of the shaft, forming thus loose joints, to allow the required motion of the draw-heads. These rods extend outward to either side of the car, and the outer ends are bent to form the cranks *b b'*, and the rods are supported in position by bearings at *b<sup>2</sup> b<sup>3</sup>*, attached in any convenient manner to the car.

F is a link-guide, provided with arms *c c'* for attaching the guide to the lug *c<sup>2</sup>* on the under side of the draw-head. These arms are constructed to be adjusted one on each side of the lug to which they are attached by a bolt, *d*, extended through them. The ends of the bolt are square, to fit the square holes in the arms, to raise the guide by means of the rods G G', which are connected to the bolt by loops through eyes in the ends of the bolt, forming loose joints.

These rods extend outward to either side of the car, and their outer ends are provided with cranks *f f'*, and the rods are supported in position by suitable bearings at *g g'* attached to the car in any convenient manner.

A dog or catch, *h*, is pivoted to the toothed bar over the slot in the lower end, which may be moved to one side to allow the coupling-pin to be hooked onto the bar, and the dog then drops down inside of the upper part of the hook, to prevent the pin from becoming unhooked from the bar while the cars are running. (See Fig. 3 of the drawings.)

To couple the cars, the toothed bar is raised by one of the cranks *b b'* sufficiently to withdraw the coupling-pin above the interior of the draw-head, and as the link in the draw-head of the other car approaches the guide F is raised by one of the cranks *f f'* into the required position to guide the link into the mouth of the draw-head, and by crank *b* or *b'* the movement of the pinion is reversed, lowering the coupling-pin in position through the link in the draw-head, and the guide F is allowed to drop down out of the way, in position shown by dotted lines in Fig. 2 of the drawings.

It is readily seen that with these devices cars of different heights and out of line laterally by being on curves of the track, as well as those of same height and in line, may be

coupled from either side of the track without any liability of injury to the person who couples the cars.

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

1. The toothed bar B, having a slot and hook, *a*, on the lower end to connect with the coupling-pin, and adjusted to slide vertically in the slot of the standard A by means of the pinion D, adjusted in the slot of the standard, and operated by the connecting-rods E E' and cranks *b b'*, substantially as and for the purposes described.

2. The link-guide F, having arms *e e'* attached to the lug *e''* under the draw-head by bolt *d*, and operated by means of the rods G G' and cranks *f f'*, substantially as and for the purposes described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JAMES W. SNAPP.

Witnesses:

JOHN L. MINTER,  
EPHRAIM L. DRIGMORE