(No Model.)

A. S. NEAL.

CAR COUPLING.

No. 312,152. Patented Feb. 10, 1885.

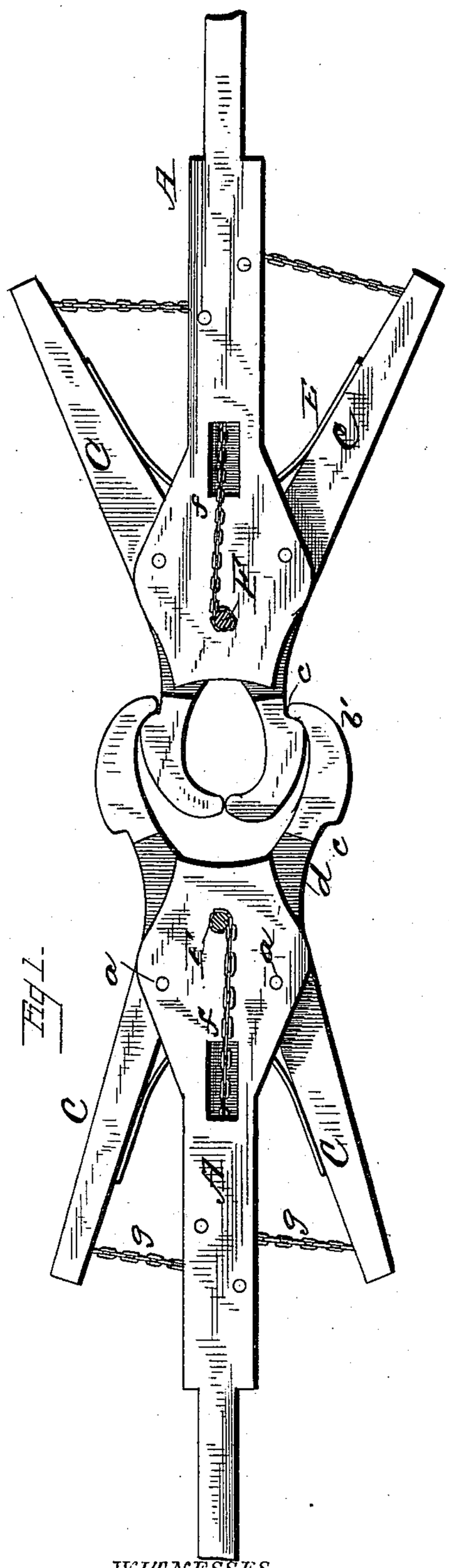

Fig. 1.

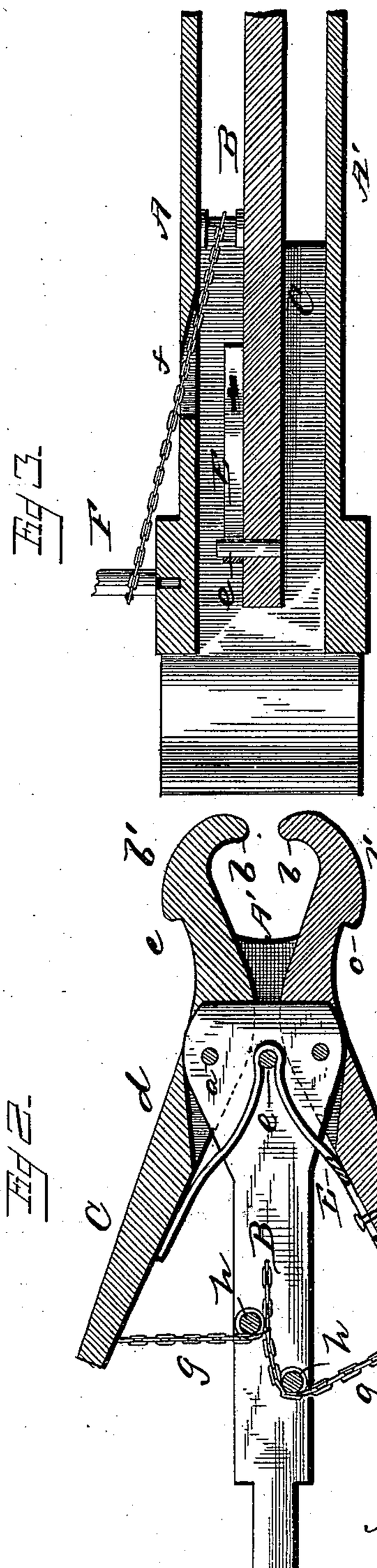

Fig. 3.

Fig. 4.

Fig. 2.

WITNESSES

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ADAM S. NEAL, OF RICHMOND, TEXAS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 312,152, dated February 10, 1885.

Application filed December 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, ADAM S. NEAL, a citizen of the United States of America, residing at Richmond, in the county of Fort Bend and State of Texas, have invented certain new and useful Improvements in Car-Couplers; and I do hereby 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 letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in car-couplers; and it consists in the construction and combination of the parts, as will be hereinafter more fully set forth, and specifically pointed out in the claims, the object of my invention being to provide a car-coupler which will automatically couple the cars to each other without the use of links or pins, and which is provided with means whereby the cars can be uncoupled from the top of the car.

In the accompanying drawings, which illustrate my invention, Figure 1 is a plan view. Fig. 2 is a horizontal section, and Fig. 3 is a vertical section.

A A′ represent the top and bottom plates of the draw-head, which are rigidly connected to each other by bolts or pivot-pins *a* near their forward ends and at the rear ends. These plates are connected to the car in the usual manner, so as to have a longitudinal spring-movement. A center plate or bumper, B, is secured between the plates A A′, and its forward end is located slightly in the rear of the end of the top and bottom plates. The bolts *a* also pass through the forward ends of this central plate, B. The plates A A′ B are enlarged at their forward ends, as shown in Figs. 1 and 2, and they are connected to each other at their rear ends by any suitable means. Each of the draw-heads have pivotally secured to the same, by means of the bolts *a*, coupling-hooks C C, which are of similar construction. These hooks, at their front portion, are curved inwardly, as shown at *b*, the outer portions being rearwardly curved, as shown at *b′*, and provided with notched portions *c c*. Opposite the pivots *a* these coupling-hooks are provided with a mortise, *d*, into which the head of the center plate, B, passes, and the rear portions of said coupling-hooks extend outwardly, as shown, and the jaws at the forward end of the said coupling-hooks are held in a closed position by a spring, E, which is bent centrally back upon itself, so as to partially encircle an upwardly-projecting pin, *e*, which enters the upper forward portion of the plate B. The terminal portions of said spring E are provided with slots, through which slots pass pins, which enter the ends of the coupling-hook C. The spring E rests upon the upper portion of the plate B. The jaws of the coupling-hooks C C are of a greater vertical width than their body portion, said jaws being about on the same plane as the upper and lower portions of the top and bottom plates, A A′, while the portions of the coupling-hooks rear of the top and bottom plates are of a width equal to the space between the inner portions of the top and bottom plates, and the members of the hooks C, rear of the pivots *a a*, taper both vertically and laterally toward their rear ends. When the coupling-heads come together, the upper and lower plates serve as bumpers, and when the cars are coupled to each other the jaws of the coupling-hooks will be located between the opposite jaws, the end hooks, *b b*, of one of the coupling-hooks engaging with the notches or recesses *c c* in the opposite draw-head.

To the side of the car, and pivotally secured in the upper plate, A, is a vertical shaft, F, which is provided with a flexible connection, which passes through a slot, *f*, in said plate, and is connected to cords or chains *g g*, which pass over guide-pulleys *h h*, said flexible connections or chains being attached to the ends of the coupling-hooks. The guide-pulleys *h h* are pivotally secured between the plates A B, and when it is desired to uncouple the cars it can be accomplished by simply turning the shaft F upon the top of the car, at which point it is provided with a hand-wheel, so as to tighten the flexible connections, thus drawing the ends of the coupling-hooks together and separating the jaws.

I claim—

1. The combination, in a car-coupler, of the

pivoted coupling-hooks provided at their front ends with similarly-constructed jaws, having inwardly-turned ends *b*, outwardly-curved portions *b'*, and notches *c*, spring E, with rearwardly-diverging members, and plates A A' B, the parts being organized substantially as shown, and for the purpose set forth.

2. In a car-coupling, the combination of the pivoted coupling-hooks C C, with enlarged forward end portions, constructed substantially as shown, top and bottom plates, A A', and center plate, B, the top and bottom plates projecting beyond the center plate so as to form bumpers, the center plate having attached thereto a spring with rearwardly-diverging members, and means for drawing the ends of the coupling-hooks together, the parts being organized as shown.

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

ADAM S. NEAL.

Witnesses:
J. W. PARKER,
J. J. DICKERSON.