

(No Model.)

E. N. ANDERSON.
CAR COUPLING.

2 Sheets—Sheet 1.

No. 519,520.

Patented May 8, 1894.

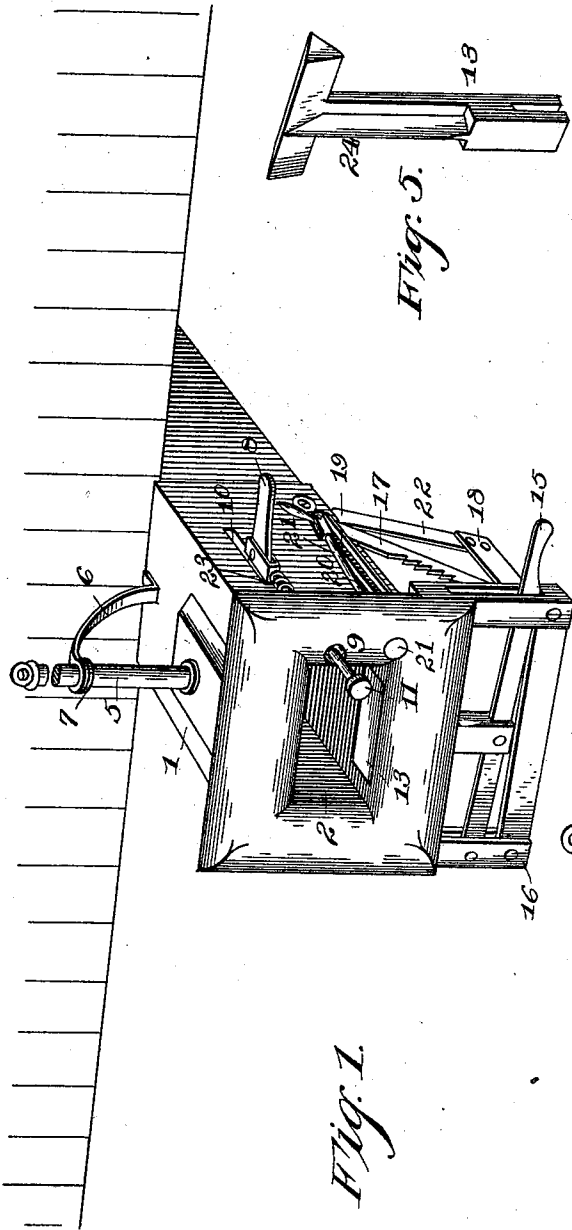


Fig. 1.

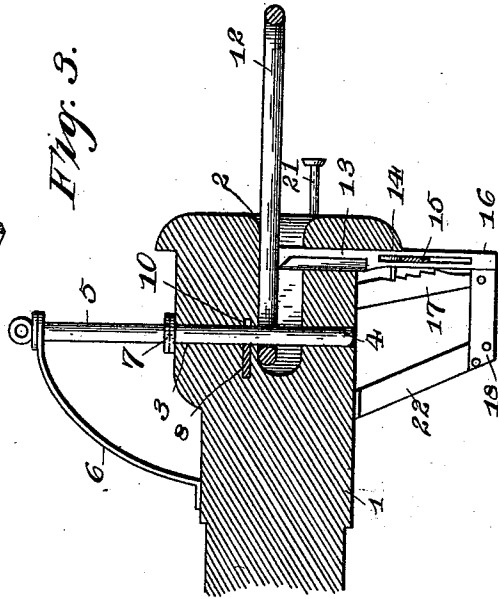


Fig. 3.

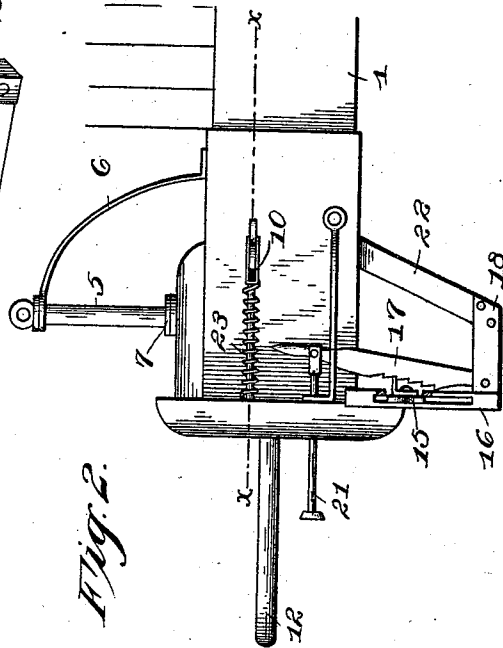


Fig. 2.

Inventor

Edwin N. Anderson,

By his Attorneys.

C. A. Snow & Co.

Witnesses

C. A. Ford
H. W. Riley

(No Model.)

2 Sheets—Sheet 2.

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Fig. 4.

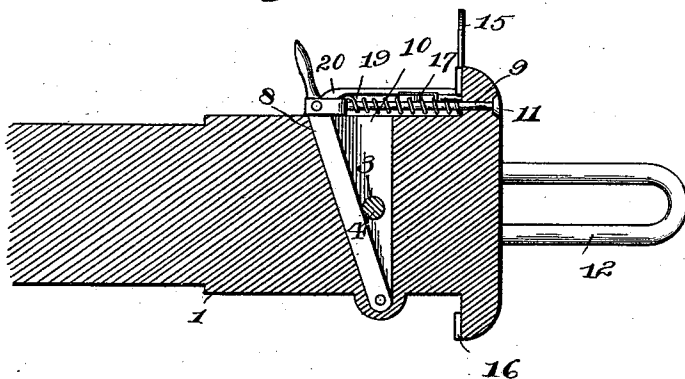


Fig. 6.

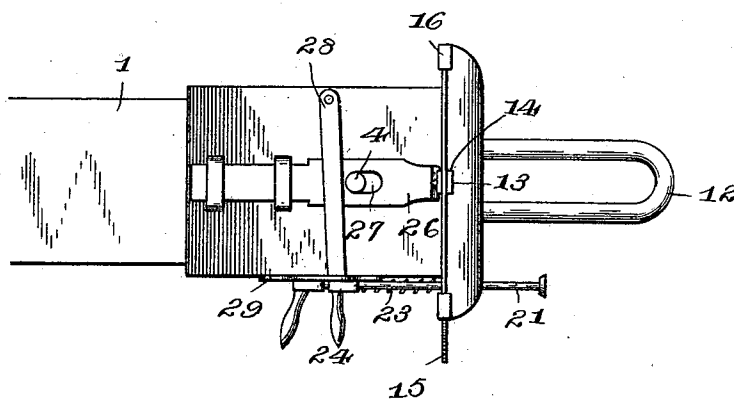
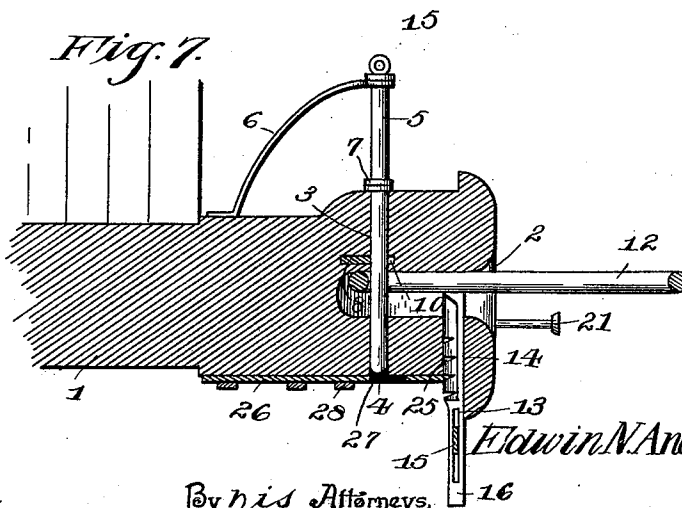


Fig. 7.



Inventor

Edwin N. Anderson,

By his Attorneys.

Witnesses

C. H. Ford.
W. R. Day.

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

EDWIN N. ANDERSON, OF LILLY DALE, NEW YORK, ASSIGNOR OF TWO-THIRDS TO T. C. ALDEN, OF SAME PLACE, AND E. W. MORLEY, OF ANDOVER, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 519,520, dated May 8, 1894.

Application filed August 15, 1893. Serial No. 483,202. (No model.)

To all whom it may concern:

Be it known that I, EDWIN N. ANDERSON, a citizen of the United States, residing at Lilly Dale, in the county of Chautauqua and State of New York, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car couplings.

10 The object of the present invention is to improve the construction of car couplings, and to provide a simple and efficient one, which will couple automatically and which may be readily uncoupled without necessitating going between cars.

15 A further object of the invention is to provide means for holding a link at the desired elevation to cause it to enter readily a draw-head to avoid guiding the link by hand.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

25 In the drawings—Figure 1 is a perspective view of a car coupling constructed in accordance with this invention, the coupling pin being set for automatic coupling. Fig. 2 is a side elevation, the link being supported for guiding it into the mouth of a draw-head. Fig. 3 is a longitudinal sectional view of the same. Fig. 4 is a horizontal sectional view on line *x-x* of Fig. 2. Fig. 5 is a detail perspective view of the link support. Fig. 6 is a reverse plan view of a draw-head showing a modification of the invention. Fig. 7 is a longitudinal sectional view of the same.

35 Like numerals of reference indicate corresponding parts in all the figures of the drawings.

40 1 designates a draw-head, having a link cavity 2 and provided with a coupling pin perforation 3 and having arranged therein a coupling pin 4, which is provided with a vertical extension 5, and is arranged in a guard or keeper 6 to prevent it being withdrawn from the coupling pin perforation when it is raised for uncoupling. The coupling pin is provided intermediate of its ends with an enlargement or stop 7 to limit its fall, and it is adapted to be held elevated preparatory to

coupling by a horizontally disposed pin supporting bar 8 arranged transversely of the draw-head in a horizontal way or opening thereof and having its inner end pivoted to the draw-head. The outer end of the pivoted pin supporting bar terminates in a handle and is pivotally connected to the inner end of a push-bar 9. The horizontal opening 10 of the draw-head intersects or is arranged below the upper portion of the coupling pin perforation and the pivoted link supporting bar is adapted when the coupling pin is raised to be moved forward beneath the latter to support the coupling pin in an elevated position. The push-bar 9 is mounted in a guide opening of the draw-head; it is provided at its front end with a head 11 adapted to be engaged by an approaching draw-head after the link of the latter has entered, and is arranged beneath the elevated coupling pin to withdraw the support and to cause the coupling pin to fall and couple; and the rear end of the push-rod 9 is provided with an opening or bifurcation in which the pivoted pin supporting bar is pivoted. The link 12 is held at the desired elevation by a T-shaped vertically movable support 13, which is mounted in the draw-head at the front thereof and is adapted to guide the link into the mouth of another draw-head. The T-shaped support is arranged in a vertical way 14 of the draw-head, and its head is located in an enlargement of the way 14, and has its upper face beveled to conform to the bevel of the draw-head when it is lowered in order that the link may enter the draw-head without obstruction. The lower end of the link support is bifurcated and is pivoted to a lever 15, which is fulcrumed at one end in a depending rectangular frame 16, and which has its other end extended and terminating in a handle. The lever 15 is arranged in openings of the sides of the depending frame, and it is adapted to be engaged by a pivoted ratchet bar 17, whereby the link support is held at the desired elevation. The lower end of the rack bar 17 is pivoted in an opening of a rearwardly extending arm 18 of the depending frame 16, and its upper end is arranged in the longitudinal slot or opening 19 of a guide bar 20 arranged approximately horizontal

and mounted on the draw-head; and the said upper end of the pivoted rack-bar is pivotally attached to the rear or inner end of a push-bar or rod 21, which is mounted in a guide 5 perforation of the draw-head, and which when extended is arranged to be engaged by a draw-head to withdraw the support from the link, after the latter has entered such draw-head. The rectangular frame 16 is mounted on and 10 depends from the front of the draw-head and the inwardly or rearwardly extending arm 18 is supported by a brace 22.

Any suitable means may be employed for lifting the coupling pin from the top and 15 sides of a car and for operating the link support from such points.

It will be readily apparent that the car coupling is adapted for automatic coupling, and that the link may be held at any elevation 20 to obviate the necessity of guiding the same by hand to direct it into the mouth of a draw-head.

The means for lifting the coupling pin will, preferably, be a chain to extend to the top of 25 a car and a rock-shaft to the sides thereof; and as soon as the coupling pin is elevated, the pin-supporting bar 8 is moved beneath it by a spiral spring 23, which is disposed on the push-rod 9 and has one end connected to bar 30 8 and its other end attached to the front of the draw-head.

In Figs. 6 and 7 is illustrated a modification of the invention, in which the link-support 24 is provided at its rear face with a vertical series of notches 25 that are engaged by 35 a longitudinally-disposed slide 26, whereby the link-support is maintained at the desired elevation. The slide 26 is mounted in suitable ways and it is constructed of resilient material in order to enable it to give to prevent 40 injury to the link-support or a link, should the parts become cramped. It is provided with a longitudinal opening 27 to receive the coupling pin, and it has pivotally 45 connected to it a transverse lever 28, which is arranged in a keeper 29, and which terminates in a handle. The lever 28 is connect-

ed with a push-rod to enable the mechanism for holding the link-support elevated to be tripped.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

1. In a car coupling, the combination of a vertically movable link support mounted in the draw-head and depending therefrom, a depending frame mounted on the draw-head 60 and arranged transversely thereof, a transversely disposed lever having one end fulcrumed on the frame and pivoted intermediate of its ends to the lower end of the link support, a pivoted rack-bar supported by said 65 frame and arranged in rear of the lever and adapted to engage the same to hold the link support at the desired elevation, and means for releasing the lever from engagement with the rack-bar, substantially as described.

2. In a car coupling, the combination of a vertically movable link support mounted in the draw-head and depending therefrom, a depending frame mounted on the draw-head 75 and arranged transversely thereof, a transversely disposed lever having one end fulcrumed on the frame and pivoted intermediate of its ends to the lower end of the link support, a pivoted rack-bar supported by said 80 frame and arranged in rear of the lever and adapted to engage the same to hold the link support at the desired elevation, and a longitudinally disposed push-rod mounted on the draw head and adapted to project beyond the 85 same and having its inner end connected to the rack-bar, substantially as described.

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

EDWIN N. ANDERSON.

Witnesses:

W. G. ALLEN,
F. J. PEACOCK.