(No Model.)

N. S. DUGGAN.

CAR COUPLING.

No. 526,102. Patented Sept. 18, 1894.

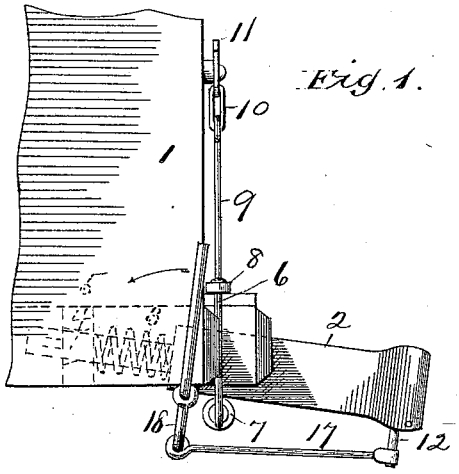


Fig. 1.

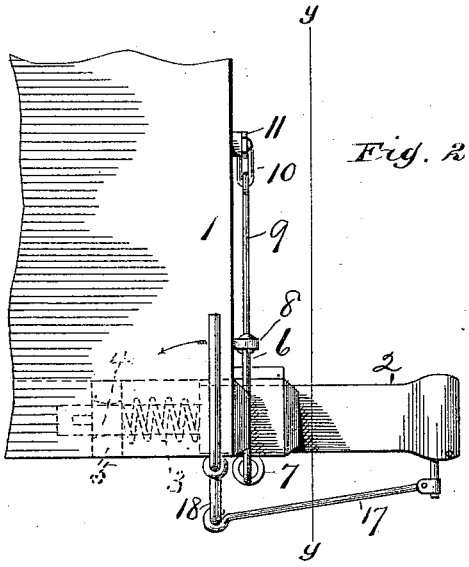


Fig. 2.

Fig. 3.

Fig. 4.

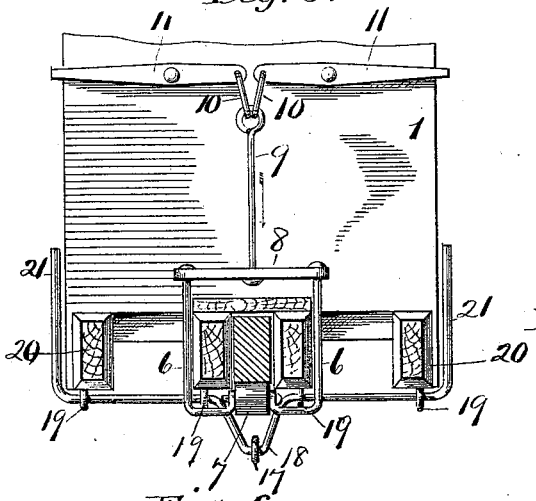


Fig. 6.

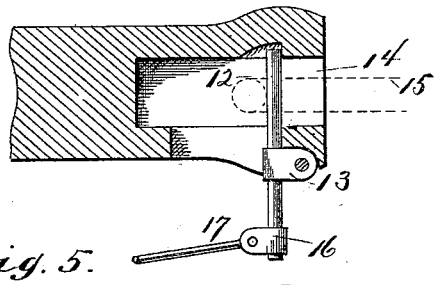
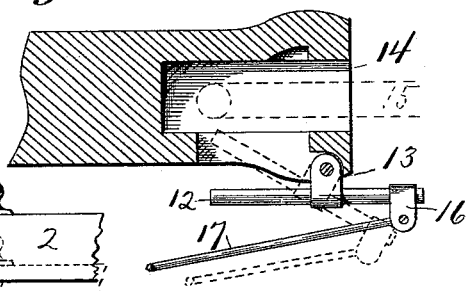
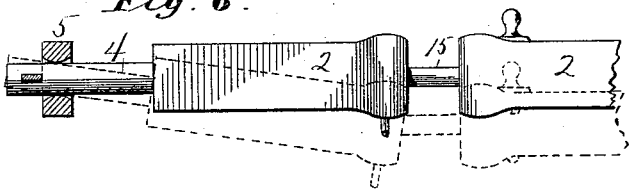


Fig. 5.





Witnesses:

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UNITED STATES PATENT OFFICE.

NICHOLAS S. DUGGAN, OF GATESVILLE, TEXAS, ASSIGNOR OF ONE-HALF TO A. D. HONEYCUT, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 526,102, dated September 18, 1894.

Application filed February 12, 1894. Serial No. 499,943. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS S. DUGGAN, a citizen of the United States, residing at Gatesville, in the county of Coryell and State of Texas, have invented certain new and useful Improvements in Car-Couplers; and I do 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 the figures of reference marked thereon, which form a part of this specification.

My invention relates to car couplers, and has for its object to provide a coupler of a simple construction which can be operated without going between the cars both in coupling and in uncoupling, and also to provide for adjusting the height of the coupler or draw head so that cars of different heights can be readily coupled.

To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists in the construction and in the combination of parts hereinafter particularly described and then defined by the claims, reference being had to the accompanying drawings forming a part hereof, in which—

Figure 1 is a side elevation of a portion of a car with my invention applied, showing the draw head in its lowered position; Fig. 2, a similar view showing the draw head elevated; Fig. 3, a front elevation with parts in section on the line *y—y* of Fig. 2; Fig. 4, a vertical section through a portion of the draw head showing the coupling pin in its raised position; Fig. 5, a similar view showing the coupling pin in its lowered position, and Fig. 6, a side view of two draw heads coupled together, the full line showing the draw head in the same plane, and the dotted line showing them when in different planes.

In the drawings the numeral 1 designates the body of a car and 2 a draw-head capable of being raised and lowered and having a spring 3 passed around its rearwardly extending rod or bar 4 with one end bearing against a cross bar or timber 5 and the opposite end against the rear of the draw head proper as illustrated in Figs. 1 and 2 so as to afford a spring cushion for the draw-head. The draw head is sustained by a yoke 6 provided with a friction roller 7 which bears against the under side of the draw head as illustrated. To the cross bar 8 of the yoke is attached one end of a link 9, the other end of which is connected by links 10 to the ends of two levers 11 pivoted or fulcrumed to the front of the car as illustrated. By depressing the outer end of either of these levers from either side of the car the draw head can be lifted to the height desired to bring it into line with the draw head of the other car to be coupled. This is effected without going between the cars and the draw head can thus be adjusted to the height necessary to receive the coupling link projecting from the draw-head of the other car. Each draw head is provided with a coupling pin 12 pivoted by a loop 13 or otherwise to the lower face of the draw head adjacent to its open end in such a manner that when the pin is raised its upper part will stand vertically in the opening 14 of the draw head as illustrated in Fig. 4 so as to hold the coupling link 15 in the draw head and thus couple the cars together. The lower end of the coupling pin 12 is connected by a loop 16 or otherwise to a rod 17 which at its other end is connected to a crank lever 18 journaled in bearing 19 attached to the side timbers 20 of the car and provided with handles 21 which lie on opposite sides of the car. The lever 18 and its handle 21 may be so disposed, for instance as illustrated in Fig. 1 of the drawings, that they will hold the coupling pin 12 normally in its upright position illustrated in Fig. 4 so that when the link 15 in the act of coupling the cars will strike the pin 12 it will press the pin backward so as to allow the link to pass beyond it when the weight of the lever 18 and its handles will draw back the rod 17 so as to throw the pin into its vertical position illustrated in Fig. 4 thus securely holding the link in the draw head and the cars coupled. However instead of having the lever 18 and its arms so disposed to operate as stated, the movement of the pin 12 into its vertical position may be dependent wholly upon the movement of the handles 21 of the crank lever 18. In uncoupling the cars they are shifted together close enough to move back-

ward the link 15 so as to leave the pin 12 free to be moved out of the link, the pin being thrown downward by movement of the handle 21 by hand in the direction of the arrow in Figs. 1 and 2 so as to throw forward the rod 17 and thus throw down the pin 12 out of line with the link 15 whereupon one car can be drawn away from the other.

I have described and shown what I consider to be the best construction and arrangement of parts but the details can be varied without departing from the essential features of the invention.

Having described my invention and set forth its merits, what I claim is—

1. In a car coupler, the combination of the vertically movable draw-head, the yoke passed around the same and provided with the friction roller which bears against the under side of the draw head, the link connected with a cross bar uniting the upper ends of the yoke, and the levers connected with the upper end of said link whereby the draw head can be raised and lowered without going between the cars for the purpose described.

2. In a car coupler, the combination of the vertically movable draw head, the coupling pin pivoted to the lower side of the draw head adjacent to its open end, the crank lever passing under the draw head, and fulcrumed to a stationary part of the car frame and having handles lying on opposite sides of the car, and the rod loosely connected at one end to said crank lever and pivotally connected to the other end to the coupling pin and adapted to be thrust forward by the movement of the crank lever to throw the coupling pin backward and out of line with the coupling link, and to be drawn backward by the weight of the crank lever, when the same is released, so as to throw the coupling pin upward into its locked position and retain it in such position until depressed by the coupling link, said connecting rod being pivotally connected at opposite ends as specified to permit it to compensate for the various adjustments of the movable draw head, substantially as and for the purposes described.

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

NICHOLAS S. DUGGAN.

Witnesses:
GEO. E. WEST,
G. M. WARE.