

No. 616,091.

Patented Dec. 20, 1898.

J. J. EHLERS.

CAR COUPLING.

(Application filed Aug. 24, 1898.)

(No Model.)

Fig. 1.

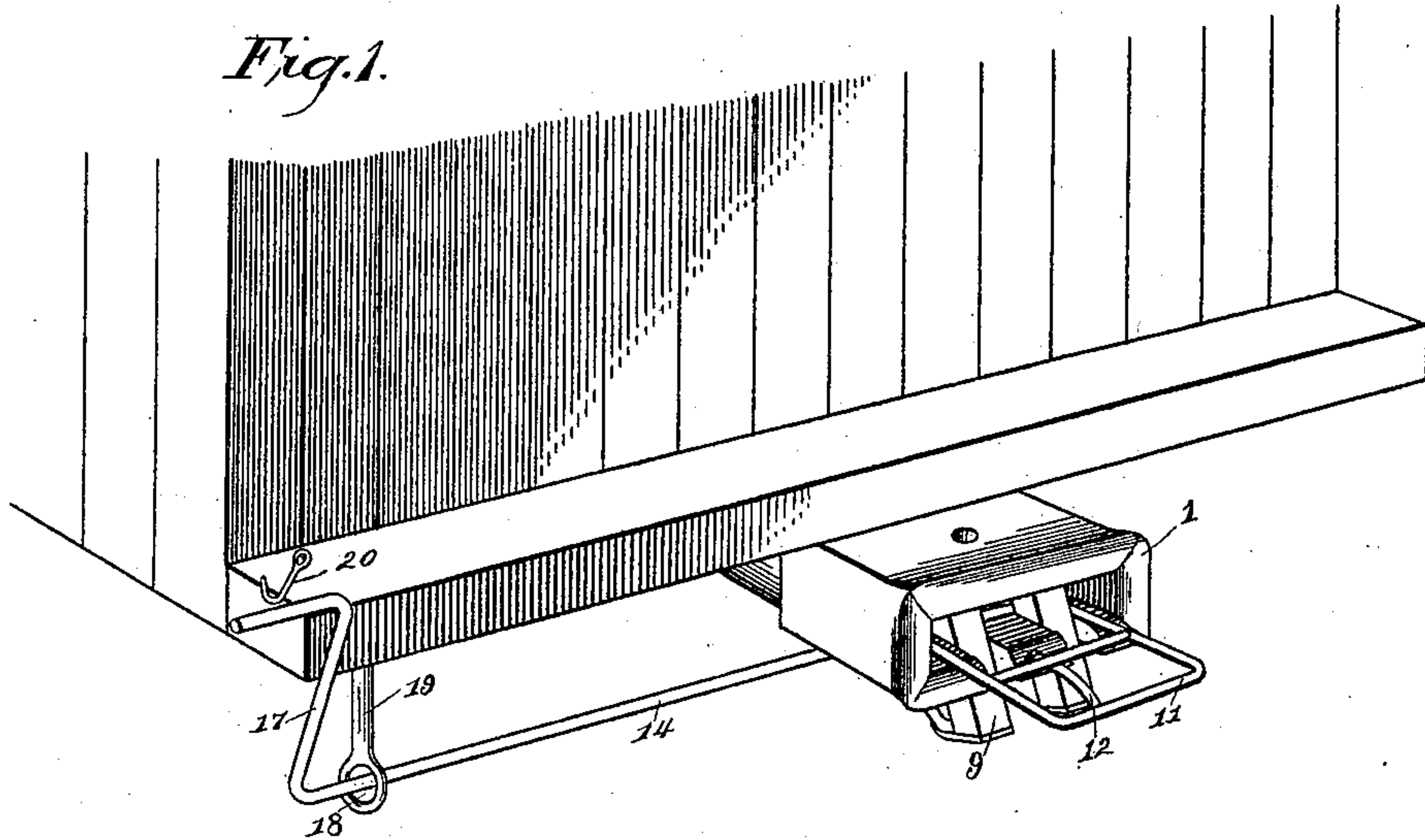


Fig. 2.

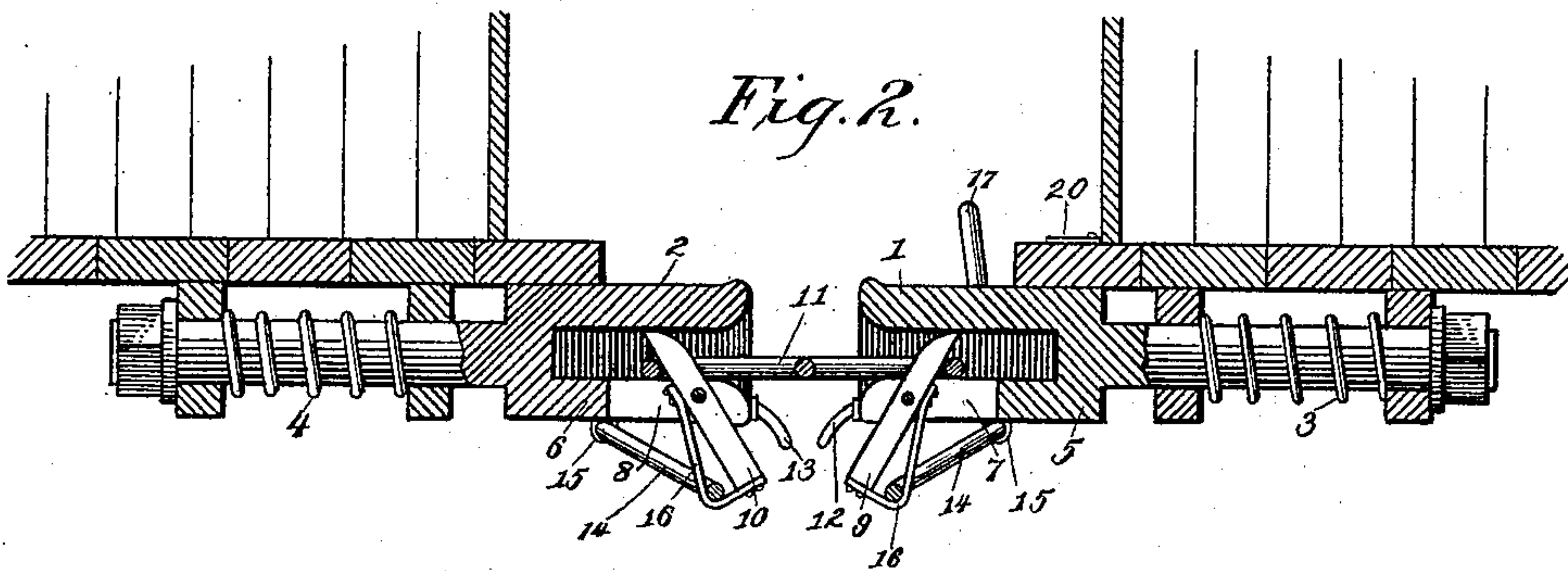


Fig. 3.

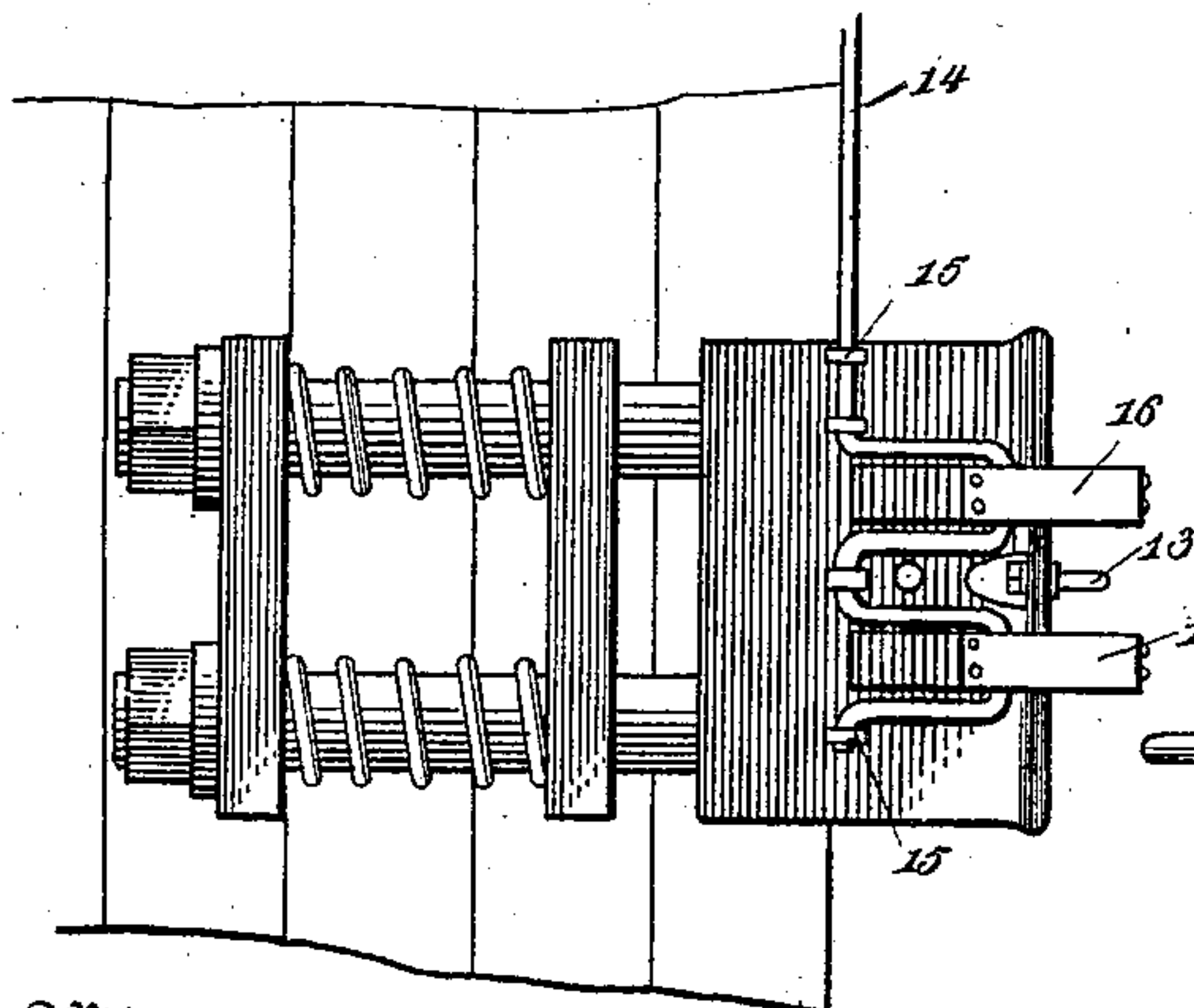
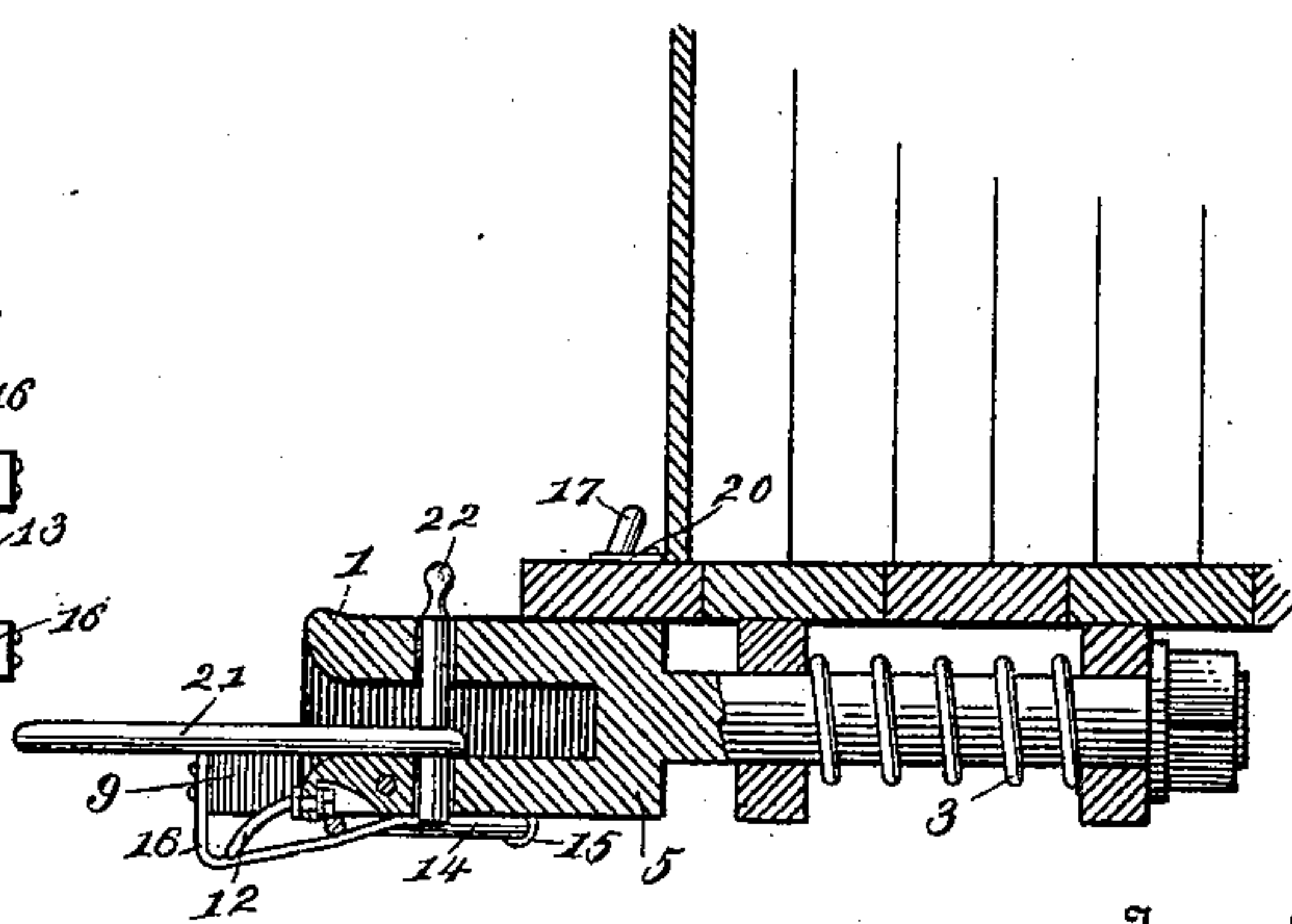


Fig. 4.



Witnesses

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 616,091, dated December 20, 1898.

Application filed August 24, 1898. Serial No. 689,445. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. EHLERS, a citizen of the United States, residing at Millard, in the county of Douglas and State of Nebraska, have invented a new and useful Car-Coupling, of which the following is a specification.

My invention relates to car-couplings, and more particularly to that class of car-couplings known as "automatic," in which two cars coming together are automatically coupled without manual handling.

The object of my invention is to generally improve the construction and operation of this class of car-couplings; and with this object in view my invention consists in the improved construction, arrangement, and combination of parts hereinafter fully described and afterward particularly pointed out in the claims.

In order to enable others skilled in the art to which my invention most nearly appertains to make and use the same, I will now proceed to describe its construction and operation, having reference to the accompanying drawings, forming part hereof, in which—

Figure 1 is a perspective view of a portion of one end of a car equipped with a coupling constructed in accordance with my invention. Fig. 2 is a detail sectional view on a longitudinal plane extending partially through two cars equipped with my invention, the cars being shown as coupled together. Fig. 3 is an inverted plan view illustrating the means for releasing my improved coupling. Fig. 4 is a detail sectional view illustrating the application of my improved coupling for use in coupling with a car by means of the ordinary link and pin.

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

Referring to the drawings by numerals, 1 and 2 indicate the draw-heads of two cars, which are exactly the same in construction and operation, the draw-head 1 being represented as at the end of one car and the draw-head 2 on the opposite end of the opposite car. The manner of connecting the draw-heads to the cars and of cushioning them by means of the springs 3 and 4 is old and well known and forms no part of my invention. The bottom walls 5 and 6 of the draw-heads

are provided with notches 7 and 8, in which are hinged dogs or levers 9 and 10, the lower ends of which are heavier than the upper ends, so that their normal positions would be vertical, or nearly so, with the upper ends projecting across the openings in the draw-heads.

11 indicates the link, by means of which the cars are coupled together, and 12 and 13 indicate swiveled rods adapted to guide the link into the openings in the draw-heads.

14 indicates a cranked rod pivoted in bearings 15 in the under side of each draw-head and engaging between each dog and a metal strip 16 secured thereto, whereby the lower end of the dog may be raised by turning said rod. To facilitate the turning thereof, a crank-handle 17 is provided on the outer end thereof, which passes through an eye 18 in a bracket 19, secured to the car. The rod 14 may be held rigid in a position to hold the dog in the slot and in an inoperative position by means of a hook 20.

21 and 22 indicate the ordinary link and pin, by means of which cars are ordinarily coupled.

The construction of my invention will be readily understood from the foregoing, and its operation may be described as follows: When a car from which the link 11 is projected approaches another car equipped with my invention, the forward end of the link will enter the wide opening in the front end of the draw-bar, as draw-bar 1, and, riding over the upwardly-projected inner end of the dog 9, will press it downward until the link slips over its point, when the excess of weight on its lower end will cause it to assume the position shown in Fig. 2, with the forward side of the link beyond it. The dogs 9 and 10 are duplicated in each draw-head, and the link operates to couple itself with both of the dogs at the same time. Should it be desired to uncouple the cars, the rod 14 is turned, by means of a crank 17, in a direction to raise the lower end of the dog into the position shown in Fig. 4, when the link may be withdrawn without interfering. Upon the release of the handle 17 the weight of the lower ends of the dogs will cause them to again assume their set position, as shown in Fig. 2, ready for another operation of coupling.

The construction of my invention will per-

mit the use of the ordinary link 21 and pin 22, as shown in Fig. 4, when necessary.

When it is desired that two cars shall not become coupled when they come together, especially during the operation known to railroad men as making a "flying switch," the dogs will be adjusted into the position shown in Fig. 4 and the hook 20 engaged with the handle 17 to retain them in that position.

While I have illustrated and described the best means now known to me for carrying out my invention, I do not wish to be understood as restricting myself to the exact details of construction shown, but hold that any slight variation therefrom, such as might suggest itself to the ordinary mechanic, would clearly be comprehended in the limit and scope of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a car-coupling, the combination with a draw-head provided with a wide opening in

its outer end, a pair of deep notches in the lower wall of the end, of a pair of dogs pivoted in said notches, a rod pivoted crosswise to the lower side of the draw-bar and bent to form cranks bearing under the lower ends of the dogs, and a crank-handle for operating said rod, substantially as described.

2. In a car-coupling, the combination with a draw-head provided with a wide opening in its outer end, a pair of deep notches in the lower wall of the end, of a pair of dogs pivoted in said notches, a rod pivoted crosswise to the lower side of the draw-bar and bent to form cranks bearing under the lower ends of the dogs, a crank-handle for operating said rod, and means for securing the crank-handle in position to hold the dogs out of operation, substantially as described.

JOHN J. EHLERS.

Witnesses:

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