

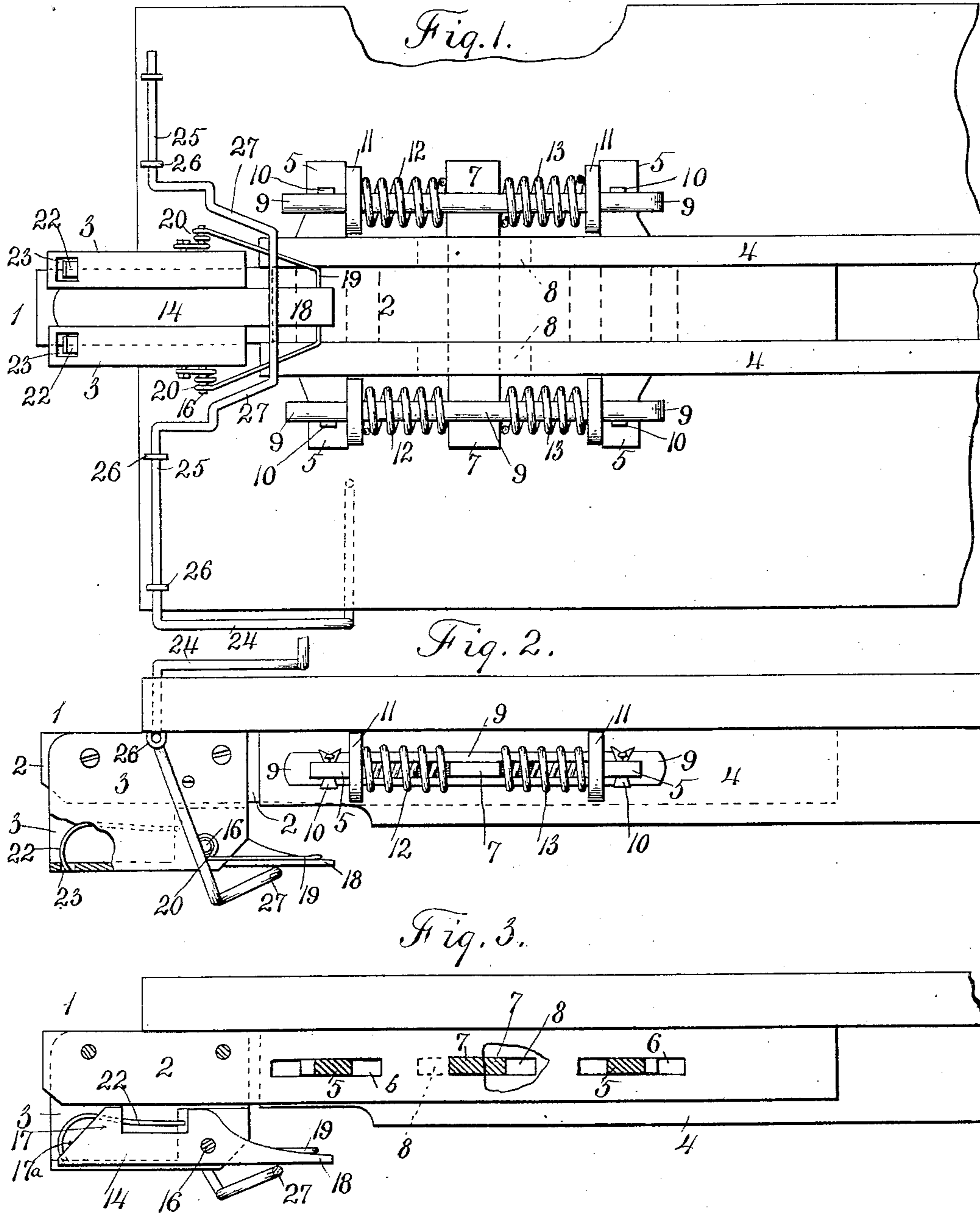
No. 616,338.

Patented Dec. 20, 1898.

J. A. LANHAM.
CAR COUPLING.

(Application filed July 12, 1897.)

(No Model.)



Witnesses
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JAMES A. LANHAM, OF BARRS, MISSISSIPPI.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 616,338, dated December 20, 1898.

Application filed July 12, 1897. Serial No. 644,259. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. LANHAM, of Barrs, in the county of Clay and State of Mississippi, have invented certain new and useful Improvements in Car - Couplings; 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.

My invention relates to improvements in car-couplers; and it consists in the novel constructions and combinations of parts hereinafter more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, illustrating the invention, Figure 1 is a bottom plan view of the coupler. Fig. 2 is a side elevational view, and Fig. 3 is a longitudinal sectional view thereof.

Referring more particularly to the drawings, the numeral 1 designates the draw-head, which is three-sided and formed by the front end of the buffer-bar 2 and two side plates 3. The rear end of the buffer-bar fits and moves within a guideway formed by two parallel longitudinally-extending bars or plates 4. Connected with the said buffer-bar and guideway is a yielding buffer-frame formed by two end cross-bars 5, projecting through openings in the said bars of the guideway and through elongated slots 6 in the buffer-bar, said end cross-bars being fixed or immovable.

7 designates a center cross-bar rigidly connected with the buffer-bar and movable in the elongated slots 8 in the guideway-bars 4. The projecting ends of the cross-bars on the opposite side of the guideway are connected by link-shaped couplings 9, which are retained in position on the end of the cross-bars by fastening-pins 10. The projecting ends of the center cross-bar extend loosely between the arms of the link-shaped couplings and are free to slide therein. On each link-coupling adjoining the end cross-bars are washers or abutting plates 11, and between each abutting plate and the end of the center cross-bar is a spring 12 13. The expansive force of the springs is exerted in opposite directions and normally they maintain the center cross-bar in forwardly-projected position, but are adapted to give or yield during the impact or con-

cussion of the two meeting draw-heads during the coupling operation.

14 designates a coupling-hook operating in a slot in the draw-head and pivotally connected therewith by a pin or shaft 16, the ends of which project beyond the sides of the draw-heads, as shown. The coupling-hook is provided with a hook extension or lip 17, having a beveled face 18, adapted to guide the link on the next adjoining car thereto during the coupling operation. The coupling-hook is also provided with a rearwardly-projecting shank or tongue extremity 18 beyond its pivotal point. A spring 19 has its two opposite ends secured on opposite sides of the draw-head and formed adjacent thereto with coils 20, which are secured upon the projecting ends of the coupling-hook shaft. The center portion of the bail-shaped spring bears against the upper side of the rear shank extension of the coupling-hook, as shown, and normally maintains the hook in closed position. This spring is, however, adapted to yield and permit the coupling-hook to open to receive a coupling-link to connect said link with the beveled bill of the hook, as will be readily understood.

To further assist in guiding the coupling-links into the draw-head, I have provided bow-shaped guide-springs 22, arranged at each side of the coupling-hook and each of said bow-shaped springs having its rear end secured in the draw-head and front ends thereof projecting loosely through and operating in slots 23 in the bottom of the draw-head. In order to operate the coupling-hook to uncouple the links of the adjoining car without the necessity of the operator passing between the cars, I have provided a lever 34. This lever is provided with a bail-shaped operating end 25, pivoted at 26 on opposite sides of the draw-head and provided with a rearwardly-extending central offset portion 27, adapted to bear on the under side of the shank extension of the coupling-hook, as shown. The opposite end of the lever is bent rearwardly and downwardly to form a handle having position at one side and projecting above the car. When the handle of the lever is moved forwardly, the bail-shaped operating end thereof will bear upon the shank extension of the coupling-hook and open the

said hook, and when the said shank extension is released the spring acting thereon will operate to close the hook, as will be readily understood.

5 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

10 In a car-coupler, the combination with a buffer-bar of a guide-bar formed by parallel side bars, two side plates secured to the front end of the buffer-bar and forming therewith a draw-head, a cushion or buffer-frame comprising two end cross-bars rigidly connecting
15 the side bars of the buffer-guide and passing through longitudinal slots in the buffer, a central cross-bar rigidly connected to and carried by the buffer and passing through

and working in longitudinal slots in the side bars, link-shaped couplings or guides uniting the projecting ends of the two fixed cross- 20 bars and having their arms arranged above and below the central cross-bar, and springs outside of the guideway and interposed between the fixed cross-bars and movable central cross-bar, and encircling the link-shaped 25 couplings, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JAMES A. LANHAM.

Witnesses:

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