

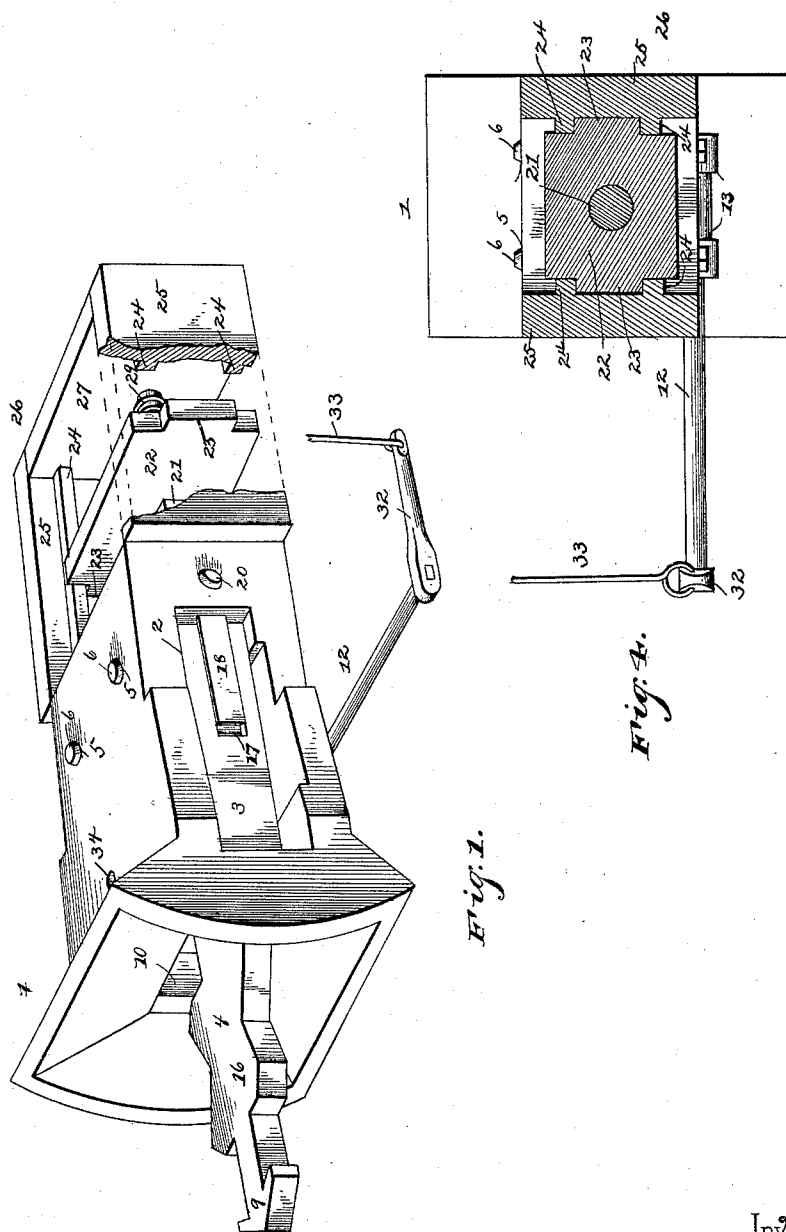
(No Model.)

2 Sheets—Sheet 1.

R. J. REYNOLDS & J. P. PITTMAN.
CAR COUPLING.

No. 468,828.

Patented Feb. 16, 1892.



Witnesses

B. S. Ober
H. H. Riley

By their Attorneys,

C. A. Snow & Co.

Inventors
Richard J. Reynolds
James P. Pittman, junr

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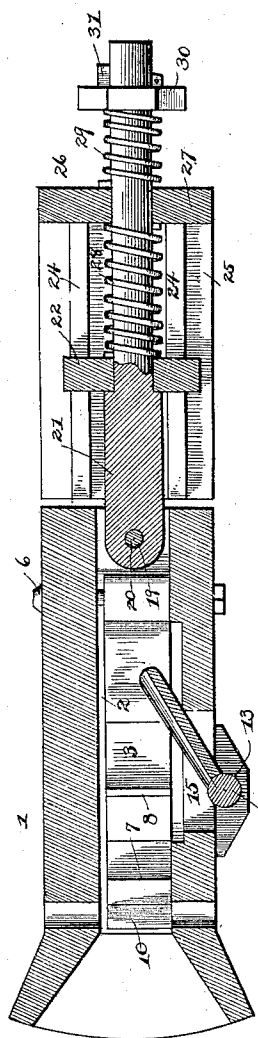


Fig. 2

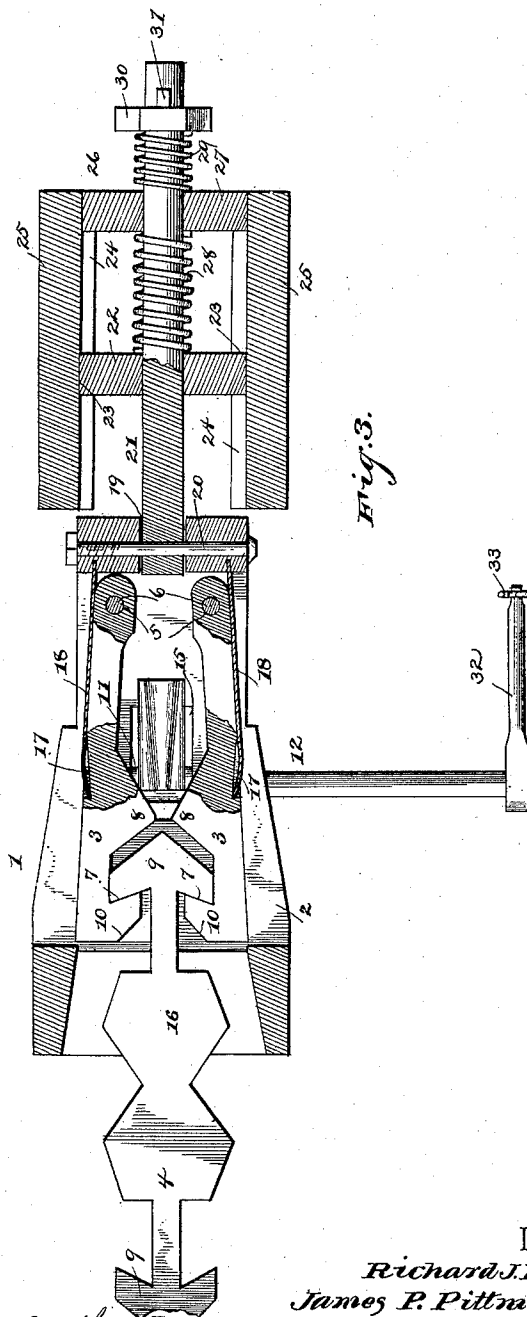


Fig. 3.

Witnesses

B. P. Obar
N. H. Riley

By their Attorneys,

Inventors;
Richard J. Reynolds,
James P. Pittman, and

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

RICHARD J. REYNOLDS AND JAMES P. PITTMAN, OF SPRINGVILLE, ALABAMA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 468,828, dated February 16, 1892.

Application filed September 11, 1891. Serial No. 405,414. (No model.)

To all whom it may concern:

Be it known that we, RICHARD J. REYNOLDS and JAMES P. PITTMAN, citizens of the United States, residing at Springville, in the county of St. Clair and State of Alabama, have invented a new and useful Car-Coupler, of which the following is a specification.

The invention relates to improvements in car-couplings.

The object of the present invention is to simplify and improve the construction of car-couplings and to provide one which will be inexpensive in construction and adapted to couple automatically when cars come together.

A further object of the invention is to enable cars to be readily uncoupled without requiring a train-hand to go between the cars.

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

In the drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a horizontal sectional view. Fig. 4 is a transverse sectional view.

Referring to the accompanying drawings, 1 designates a coupler-head having a longitudinal opening and provided with a flaring mouth and having slots 2 communicating with the longitudinal opening and adapted to receive spring-actuated jaws and allow the same to open and close laterally to clamp and release a link 4. The jaws are provided at their rear or inner ends with perforations 3, through which pass bolts 6, which are arranged in openings of the coupler-head to pivot the jaws therein, and the latter are provided at their front ends with inwardly-extending shoulders 7 to engage the link 4, and intermediate their ends with triangular enlargements or projections 8, arranged on the inner faces of the jaws. The link 4 is provided at its ends with arrow-heads 9, adapted to engage the shoulders 7 of the jaws 3, and the link 4 is adapted to spread the jaws, which are beveled at 10 on their front ends, whereby cars are coupled automatically. The jaws are spread laterally to release the link and also to hold them open by an arm 11 of a rock-shaft 12, journaled in

suitable bearings 13 on the lower face of the coupler-head, which is provided with a slot 15 to receive the arm 11. The arm 11 is arranged in the slot 15 and extends between the jaws in the rear of the triangular enlargements or projections 8, and is adapted to engage their rear inclined faces to spread the jaws when the rock-shaft 12 is turned. When the jaws are spread by the arm of the rock-shaft, cars may be coupled, and the link entering the coupler-head will strike the arm 11 and throw the same rearward, thereby causing the jaws to spring together and clamp the link, and the latter has its inward movement limited by enlargements 16, arranged intermediate the ends of the link and on opposite sides of the same and adapted to strike the inclined faces of the mouth of the coupler-head, which will prevent the link entering too far. The outer faces of the jaws are provided with recesses 17, arranged to be engaged by the free ends of springs 18, which have their rear ends secured to the coupler-head at the rear ends of the slots 2. The coupler-head is provided at its rear end with an opening 19, in which is pivoted by a transverse bolt 20 the front end of a draw-bar 21, whereby the coupler-head is capable of a limited vertical swing or pivotal movement to enable it to be coupled to cars having their coupling-heads arranged at different heights. The draw-bar 21 has its front portion squared and its rear portion rounded, and it is secured intermediate its ends to a slide 22, which is provided at its ends with tongues 23, arranged to engage grooves or ways formed by ribs 24, arranged on the inner faces of parallel sides 25 of a frame 26. The frame 26 is composed of similar sides 25 and a back 27, connecting the rear ends of the sides, and it is designed to be secured between longitudinal beams or sills of a car, and it is provided with openings to receive securing-bolts. The back 27 of the frame is provided with a central opening, in which is arranged a rounded portion of the draw-bar and which back 27 is engaged by springs 28 and 29, which form cushions to take up shocks and to prevent injury to the parts during coupling. The springs are arranged on the rounded portion of the draw-bar, and the one 28 is interposed between the slide 22 and the back 27 and is arranged within the frame 26. The

spring 29 engages the rear face of the back and is interposed between the same and a disk 30, which is secured by a key 31 to the rear end of the draw-bar. By this arrangement it
5 will be seen that the car-coupling is cushioned against shocks.

The rock-shaft is provided at its outer end with a handle 32, by which it may be turned, and to the handle is connected a rod 33, which
10 is designed to extend to the top of a car to enable the car-coupling to be operated from that point.

A vertical coupling-pin opening 34 is provided to enable the coupler-head to be connected with a car having the ordinary pin-and-link coupling.
15

It will be seen that the car-coupling is simple and comparatively inexpensive in construction and is adapted to be readily operated to couple and uncouple cars without
20 danger to the operator. Should a coupler-head pull out, it will not have sufficient drop to strike the ties or do any damage.

What we claim is—

25 1. In a car-coupling, the combination of a coupler-head having a longitudinal opening and provided in its side with slots communicating with the opening, jaws pivoted in the

slots and provided on their inner faces at points intermediate their ends with triangular enlargements, a rock-shaft journaled on the coupler-head and provided with an arm to engage said enlargements, and springs secured to the coupler-head and engaging the jaws, substantially as described.
30 35

2. In a car-coupling, the combination of a coupler-head, a frame designed to be secured to a car and composed of sides provided on their inner faces with ribs forming a way and a back connecting the sides and provided
40 with an opening, a slide arranged in the frame and provided at its ends with tongues engaging the said ways, a draw-bar pivoted to the coupler-head and secured to the slide and arranged in the opening of the back, and springs
45 arranged on the draw-bar on opposite sides of the back and forming cushions, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures
50 in the presence of two witnesses.

RICHARD J. REYNOLDS.
JAMES P. PITTMAN.

Witnesses:

J. J. OSBORN,
SUSIE OSBORN.