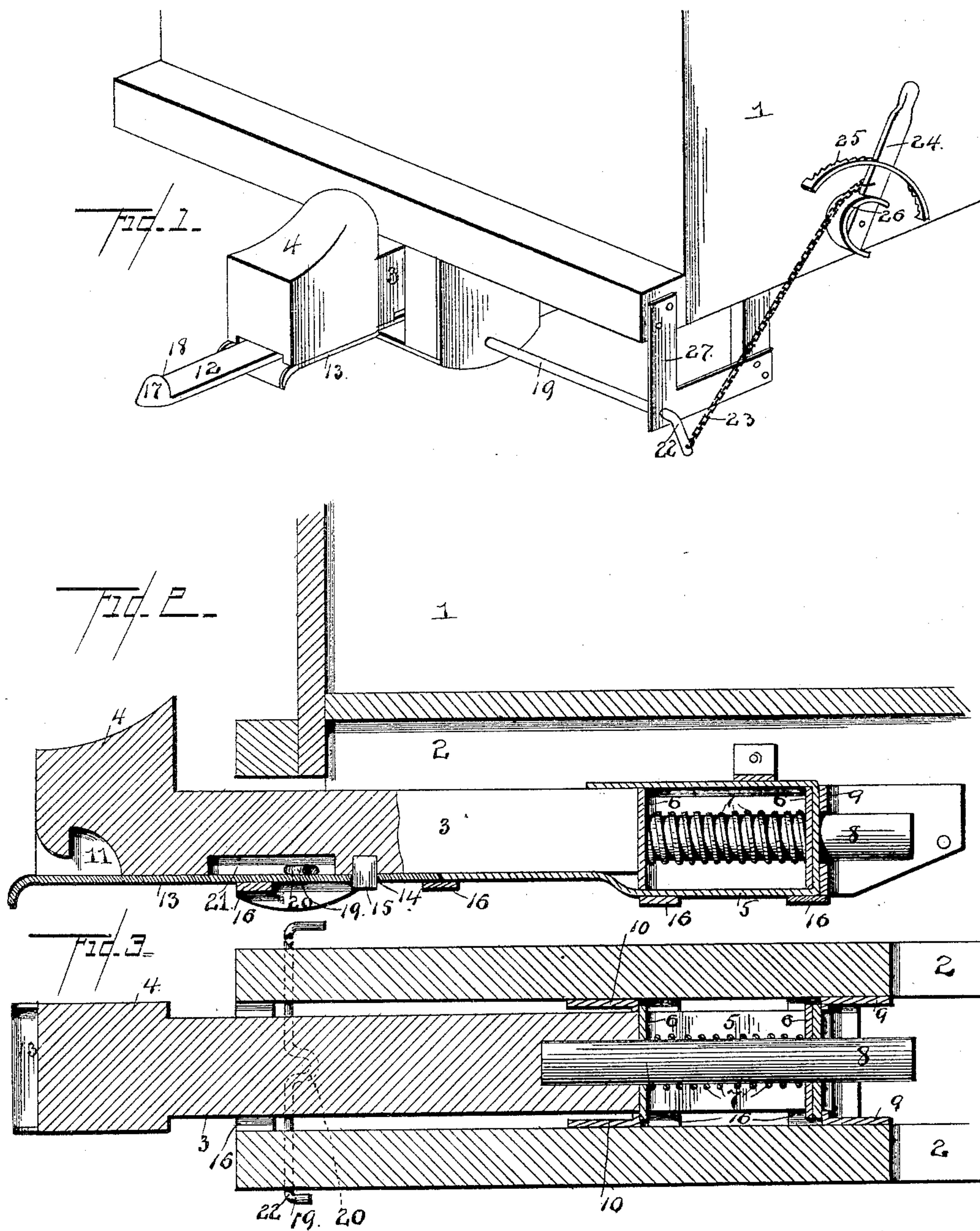


(No Model.)

G. A. PATTEN & J. T. WEBBER.
CAR COUPLING.

No. 461,043

Patented Oct. 13, 1891.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE ANDERSON PATTEN AND JOHN THOMAS WEBBER, OF RED LODGE,
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 461,043, dated October 13, 1891.

Application filed May 29, 1891. Serial No. 394,577. (No model.)

To all whom it may concern:

Be it known that we, GEORGE ANDERSON PATTEN and JOHN THOMAS WEBBER, citizens of the United States, residing at Red Lodge, in the county of Park and State of Montana, have invented a new and useful Car-Coupling, of which the following is a specification.

The invention relates to improvements in car-couplings.

The object of the present invention is to provide a simple and inexpensive car-coupler which will be automatic in its operation and which will uncouple should a car be overturned or derailed, and which may be readily uncoupled without necessitating a person passing between the cars.

The invention consists of 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.

In the drawings, Figure 1 is a perspective view of a car-coupling embodying the invention. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a reverse plan view.

Referring to the accompanying drawings, 1 designates a car having horizontal sills 2, between which are arranged a draw-bar 3, and the latter is provided at its front end with an integral coupler-head 4. The draw-bar has its rear end connected to the ends of a metal stirrup 5, and interposed between cross-plates 6 is a spiral spring 7, which is arranged on the rod 8. The cross-plates are arranged within the stirrup and between the sills 2, and the spring forms a cushion to prevent shocks in coupling and jars incident to the passage of a train. The plates are limited in their movements by stops 9 and 10, which are formed by plates secured to the inner opposed faces of the sills and having their adjacent ends bent at an angle. When cars come together in coupling, the spring bears against the rear plate, and during the passage of the train, when the draw-bar is drawn outward, the spring bears against the front plate. By this arrangement a perfect spring-cushion is formed.

The coupler-head is provided in its lower face with a cavity or recess 11, which has its front walls shouldered and adapted to engage heads of a link 12, and acting in con-

junction with the coupler-head is a plate 13, which is arranged adjacent the draw-bar and is provided with an opening 14 to receive a depending lug 15 of the draw-bar, and the bottom plate 13 is secured in place by cross-plates 16 and the said lug 15. The outer or front end of the bottom plate is bent downward and is adapted to guide the link 12 into the recess 11. The link 12 is provided at its ends with heads 17, which are beveled toward the ends of the link and are shouldered at 18, and are adapted to engage the shouldered wall of the recess 11.

The cars are uncoupled and the coupler-head raised to release the link by a rock-shaft 19, which is provided intermediate its ends with a rectangular bend 20, arranged in a recess 21 of the draw-bar and adapted to engage the same to lift the coupler-head. The ends of the rock-shaft are bent at an angle, and the outer end 22 is connected by a chain 23 with a lever 24. The lever 24 is fulcrumed on the side of the car and is arranged in the ratchet 25, and is provided with a flanged segment 26, on which the chain is wound to turn the rock-shaft.

In the accompanying drawings the car-coupling is shown applied to a box car; but it is equally applicable to a passenger and other cars, and we desire it to be understood that we do not limit ourselves to the precise details of construction herein shown and described, as we may, without departing from the spirit of the invention, make minor changes therein.

It will be seen that the car-coupling is simple and inexpensive in construction and automatic in operation and adapted to be readily uncoupled without necessitating a person passing between the cars.

The rock-shaft is journaled in suitable bearings in an L-shaped plate 27, arranged on the side of the car adjacent the lever. A suitable stop is provided to prevent the loop or bend of the rock-shaft being thrown forward beyond the perpendicular.

What we claim is—

1. The combination of a car, the vertically-movable coupler-head provided with a recess in its lower face adapted to receive a headed link, a bottom plate arranged beneath the

coupler-head, and a rock-shaft having an arm arranged to engage the coupler-head and lift the same, substantially as described.

2. The combination of a car provided with
5 parallel sills 2, the vertically-movable draw-bar having a coupler-head which is provided with a recess to receive a headed link, the bottom plate arranged beneath the draw-bar and between the sills and provided with an
10 opening, the cross-plates 16, secured to the sills and retaining the bottom plate in place, and a lug depending from the draw-bar and engaging the opening in the bottom plate, substantially as described.

15 3. The combination of a car, a vertically-movable coupler-head having a recess in its lower face adapted to engage a headed link, the bottom plate arranged beneath the coup-

ler-head, the rock-shaft arranged to engage the coupler-head and having its outer end 20 bent at an angle and forming an arm, the lever fulcrumed on the side of the car and provided with a flanged segment, a chain connecting the lever and the arm of the rock-shaft and adapted to be wound on the seg- 25 ment, and the ratchet, substantially as described.

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

GEORGE ANDERSON PATTEN.
JOHN THOMAS WEBBER.

Witnesses:

T. C. Ross,
THOMAS ROSS, Sr.