

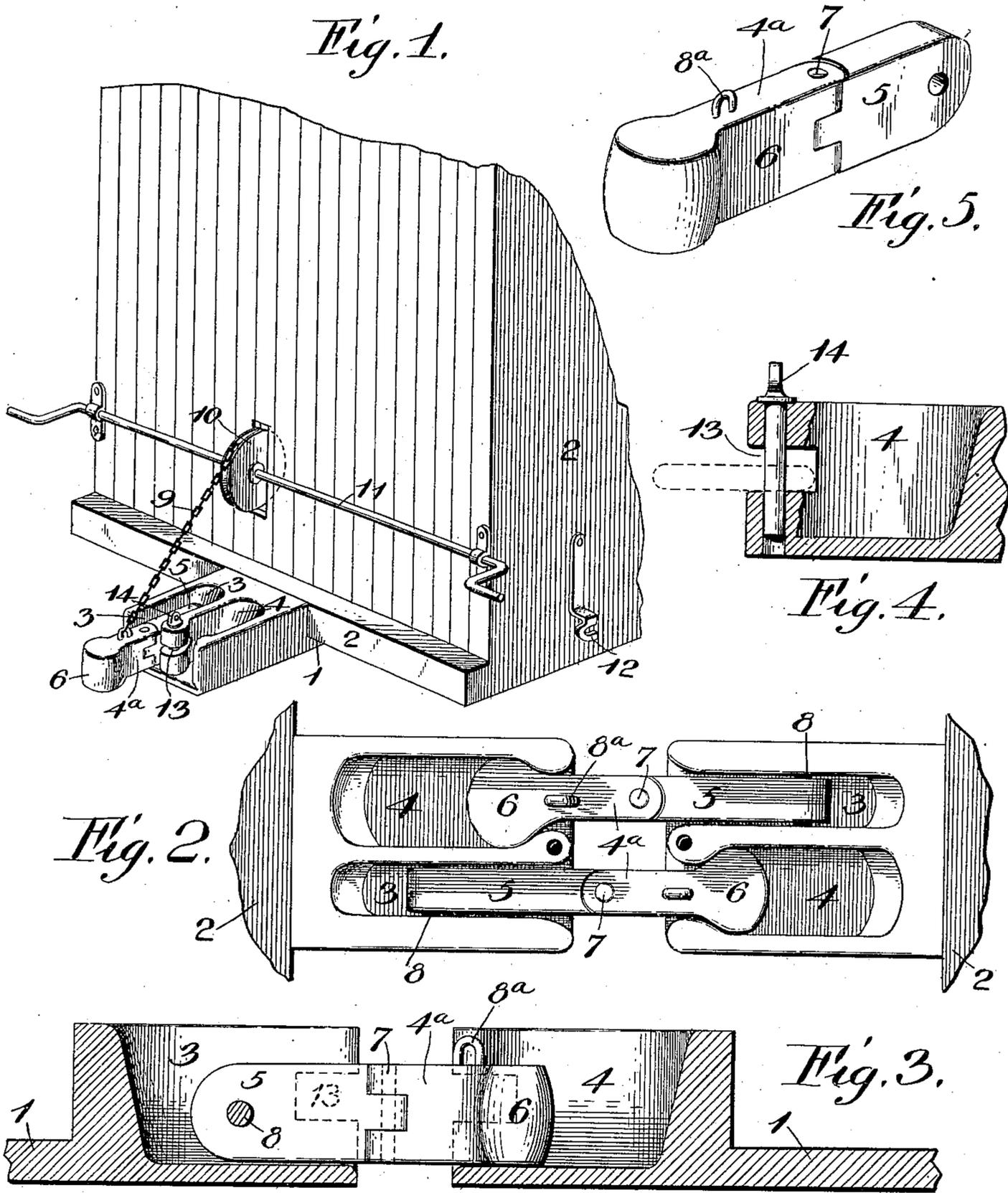
No. 614,267.

Patented Nov. 15, 1898.

W. A. HORRALL.  
CAR COUPLING.

(Application filed Oct. 30, 1897.)

(No Model.)



Inventor  
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Witnesses  
Joseph Culverwell, By His Attorneys,  
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# UNITED STATES PATENT OFFICE.

WILLIAM A. HORRALL, OF WASHINGTON, INDIANA, ASSIGNOR OF TWO-THIRDS TO JOSIAH C. PALMER AND JOHN C. BILLHEIMER, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 614,267, dated November 15, 1898.

Application filed October 30, 1897. Serial No. 656,940. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. HORRALL, a citizen of the United States, residing at Washington, in the county of Daviess and State of Indiana, 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 improve the construction of car-couplings and to provide a simple and comparatively inexpensive one which will be strong and durable and capable of being readily coupled and uncoupled from the sides of cars.

A further object of the invention is to enable a link to be guided into its engagement with a draw-head without necessitating a person going between cars.

Another object of the invention is to provide a flexible or yielding link which will be adapted to interlock firmly with the draw-head at its engaging end and which will be capable of bending or swinging laterally to relieve the draw-head of strain when cars are passing around curves.

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

In the drawings, Figure 1 is a perspective view of a car-coupling constructed in accordance with this invention and shown applied to a car. Fig. 2 is a plan view showing two draw-heads coupled. Fig. 3 is a longitudinal sectional view of the same. Fig. 4 is a detail sectional view of the intermediate wall of the draw-head, showing the coupling-pin perforation. Fig. 5 is a detail perspective view of the jointed link.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a draw-head mounted on a car 2 in any suitable manner and provided with longitudinal recesses or pockets 3 and 4, extending inward from its outer end and forming side walls and an intermediate wall. Within the pocket or recess 3 is pivoted a

link-bar 4<sup>a</sup>, composed of inner and outer sections 5 and 6, connected together at their adjacent ends by a knuckle-joint having a vertical pivot 7, whereby the link is adapted to break or bend at its center to relieve the draw-heads of lateral strain when cars are passing around curves. The inner end of the link-bar is secured to the draw-head by a transverse pin 8, forming a pivot and permitting the link-bar to swing upward for purposes hereinafter described.

The outer end of the link-bar is provided with a head which is adapted to engage the recess or pocket 4 of another draw-head, the recess or pocket 4 being constricted at its outer end to form a narrow throat and provide shoulders on the inner faces of the walls for engaging the head of the link. Each draw-head is provided with a link, and when two cars are coupled there is a double link connection between them, and the joints of the link-bars permit the draw-heads to have a limited lateral swing.

The link-bar is provided at its outer section with an eye or loop 8<sup>a</sup>, projecting from its upper face and linked into one of the links of the chain 9, which extends upward to a central pulley 10 of a transverse shaft 11. The shaft 11, which is journaled in suitable bearings on the car 2, is provided at its ends with handles and is adapted to be rotated to swing the link-bar upward and bring the same to a position for engaging a draw-head. The link-bar is dropped into engagement with the pocket or recess 4 of a draw-head by simply releasing the shaft 11, and the said shaft is adapted to be engaged by a pivoted latch 12 to lock the link-bar in an elevated position and prevent coupling. The latch consists of a bar pivoted at one end on the side of the car and having its other end angularly bent and laterally offset and provided with a hook for engaging the transverse portion of the adjacent crank-handle of the shaft 11.

The intermediate wall of the draw-head is horizontally slotted at its outer end to provide a link-opening 13, and it has a vertical perforation to receive a coupling-pin 14. This construction permits the draw-head to couple with an ordinary pin-and-link car-coupling.

The invention has the following advantages:  
The car-coupling is simple, strong, and durable, and comparatively inexpensive in construction. It is adapted to be readily coupled  
5 and uncoupled without going between cars, and the hinged joint of the link-bar permits the latter to break or bend between the draw-heads to relieve them of strain in rounding curves.

10 Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What I claim is—

15 In a car-coupling, the combination of a draw-head provided with recesses or pockets 3 and 4 and having its recess or pocket 4 constricted at the outer end to form a throat, and the upwardly-swinging link-bar mounted in

and extending from the recess or pocket 3 of  
the draw-head, and normally supported in a  
horizontal position by the same and com-  
posed of two sections hinged together at their  
adjacent ends by a vertical pivot or pintle,  
the inner section being mounted on a hori-  
zontal pivot and the outer section having a  
head to engage the recess or pocket 4 of an-  
other draw-head and adapted to swing later-  
ally, substantially as and for the purpose de-  
scribed.

In testimony that I claim the foregoing as  
my own I have hereto affixed my signature  
in the presence of two witnesses.

WILLIAM A. HORRALL.

Witnesses:

EDWARD F. MEREDITH,  
W. C. WILTSE.