

(No Model.)

G. W. ROBERSON
CAR COUPLING.

No. 494,167.

Patented Mar. 28, 1893.

Fig. 1

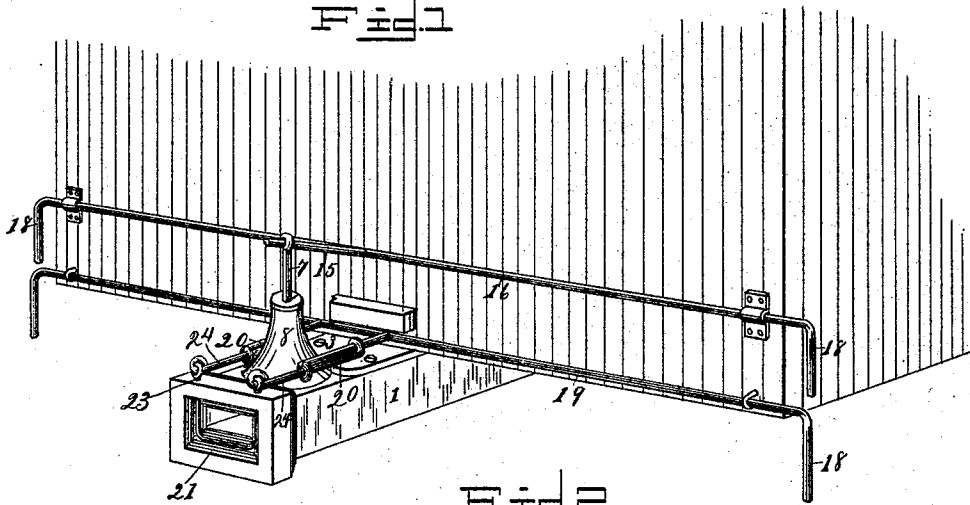


Fig. 2

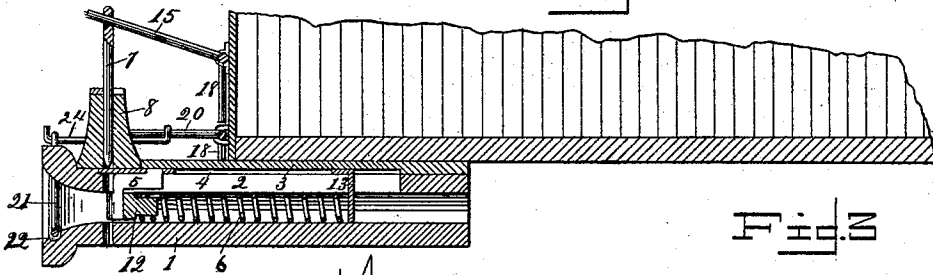


Fig. 4

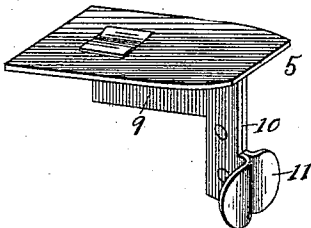


Fig. 3

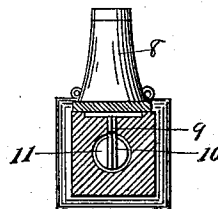
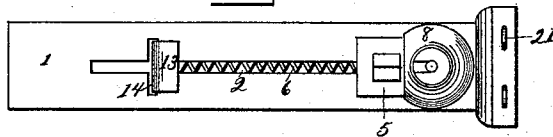


Fig. 5



Witnesses

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Inventor

George W. Roberson.

By his Attorneys,

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UNITED STATES PATENT OFFICE.

GEORGE W. ROBERSON, OF SHUSHAN, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 494,167, dated March 28, 1893.

Application filed November 30, 1892. Serial No. 453,651. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. ROBERSON, a citizen of the United States, residing at Shushan, in the county of Washington and State of New York, 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 pin and link car couplings, and to provide one by which cars may be automatically coupled, and readily uncoupled without necessitating a train hand going between cars.

The invention consists in 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 transverse sectional view. Fig. 4 is a detail perspective view of the spring actuated pin support. Fig. 5 is a detail view of the draw-bar, the top plate being removed.

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

1 designates a draw-head having a flaring mouth and terminating at its inner end in a draw-bar having a longitudinal bore and provided in the top with a longitudinal slot 2, which is covered by a top plate 3. The top plate 3 is provided in its lower face with a longitudinal recess 4 forming a way for a sliding pin support 5 which is actuated by a spiral spring 6, and which is adapted to hold a coupling pin 7 in an elevated position, and to be moved inward from beneath the pin by a link to permit the pin to fall and engage the link, and thereby couple. The draw-head is provided on its top with a slightly conical extension or head 8 which has a vertical coupling pin perforation, and is adapted to form a guide for the coupling pin; and the lower face of the head or extension 8 is recessed to form a continuation of the recess 4 of the top plate, to enable the pin support to move forward beneath the coupling pin.

The pin support consists of a plate and a longitudinal depending flange 9 which is arranged in the slot 2, and which is provided at its front end with a depending stem 10 and a transverse disk 11. The spiral spring is provided at its front end with a block or plug 12, and its rear end engages a plate which forms a bearing for the spring. This plate 13 is arranged in a transverse slot 14 of the draw-bar, and it has its upper edge bent at an angle to form a flange. The slot 14 also serves as a means for permitting the pin support to be removed from the draw-bar, the transverse disk being withdrawn through the slot 14.

The coupling pin is provided at its top with an eye, and is connected with an arm 15 of an upper rock-shaft 16 which terminates at its end in handles arranged at the side of the car 18. Below the upper rock-shaft is a lower rock-shaft 19 provided with parallel forwardly projecting arms 20 which are connected at their front ends with a rectangular link lifting frame 21 located in a groove 22 in the mouth of the draw-head, and having its ends extending through perforations 23 of the draw-head. By means of the upper and lower rock-shafts, the coupling pin may be readily controlled, and the link may be readily raised to the proper elevation to enter the draw-head of a car for coupling.

It will be seen that the car coupling is simple and effective, that it is capable of automatic coupling, and that it may be readily uncoupled without necessitating a person going between cars.

I desire it to be understood that changes in the form, proportion and the minor details of construction may be restored to without departing from the principle or sacrificing any of the advantages of this invention.

In order to accommodate the connection between the car and the link lifting frame, to the movement of the draw-head, and to prevent the arms 20 being smashed, the latter are provided with adjustable sections 24 which terminate at their outer ends in eyes linked into those of the link lifting frame. The inner ends of the sections 24 terminate in eyes which receive the arms 20, and the latter are provided at their outer ends with eyes which embrace the sections 24, whereby an adjustable connection is provided.

What I claim is—

1. In a car coupling, the combination of a draw-head provided in its top with a longitudinal and a transverse slot, a head rising from the draw-head and having a coupling pin perforation and having its lower face recessed, a top plate secured to the draw-head and covering the slots and having its lower face recessed to form a way, a pin support comprising a plate arranged in said way and having a depending flange located in the longitudinal slot and provided at its front with a depending transverse disk, a spiral spring arranged within the draw-head and engaging the pin support, and a plate located in the transverse slot and forming a bearing for the rear end of the spring, substantially as described.

2. In a car coupling, the combination with

a car and the draw-head, of a link lifting frame vertically movable in the draw-head and extending through the top of the same, a rock-shaft mounted on the car and provided with parallel outwardly extending arms terminating at their outer ends in eyes, and adjustable sections having their outer ends connected to the link lifting frame and intermediate of its ends arranged in said eyes and provided at its inner ends with eyes receiving said arms, substantially as described.

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

GEORGE W. ROBERSON.

Witnesses:

RHOBY E. QUA,

WILLIAM J. JERRY.