

R. WELLS.
Car Coupling.

No. 93,378.

Patented Aug. 3, 1869.

Fig. 1.

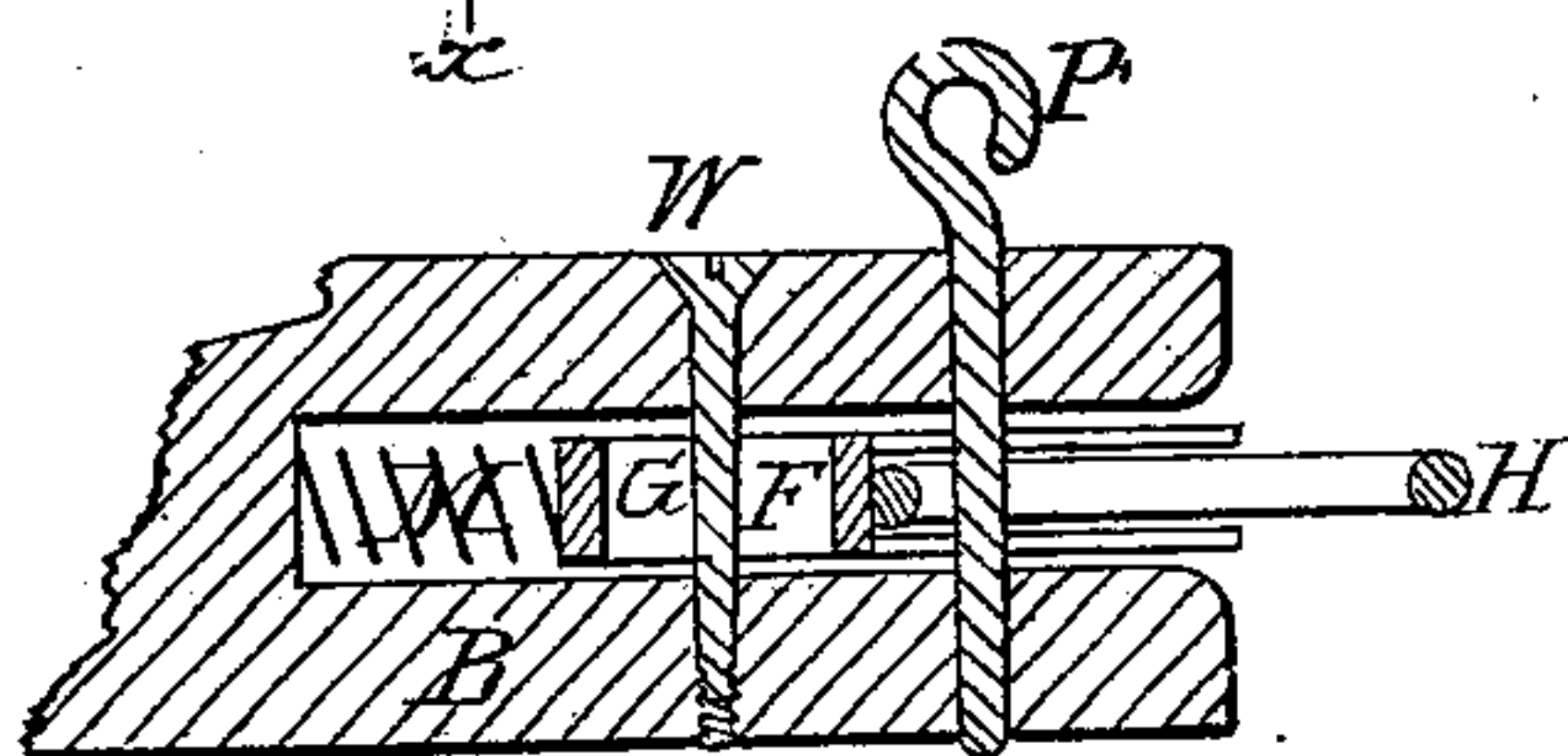
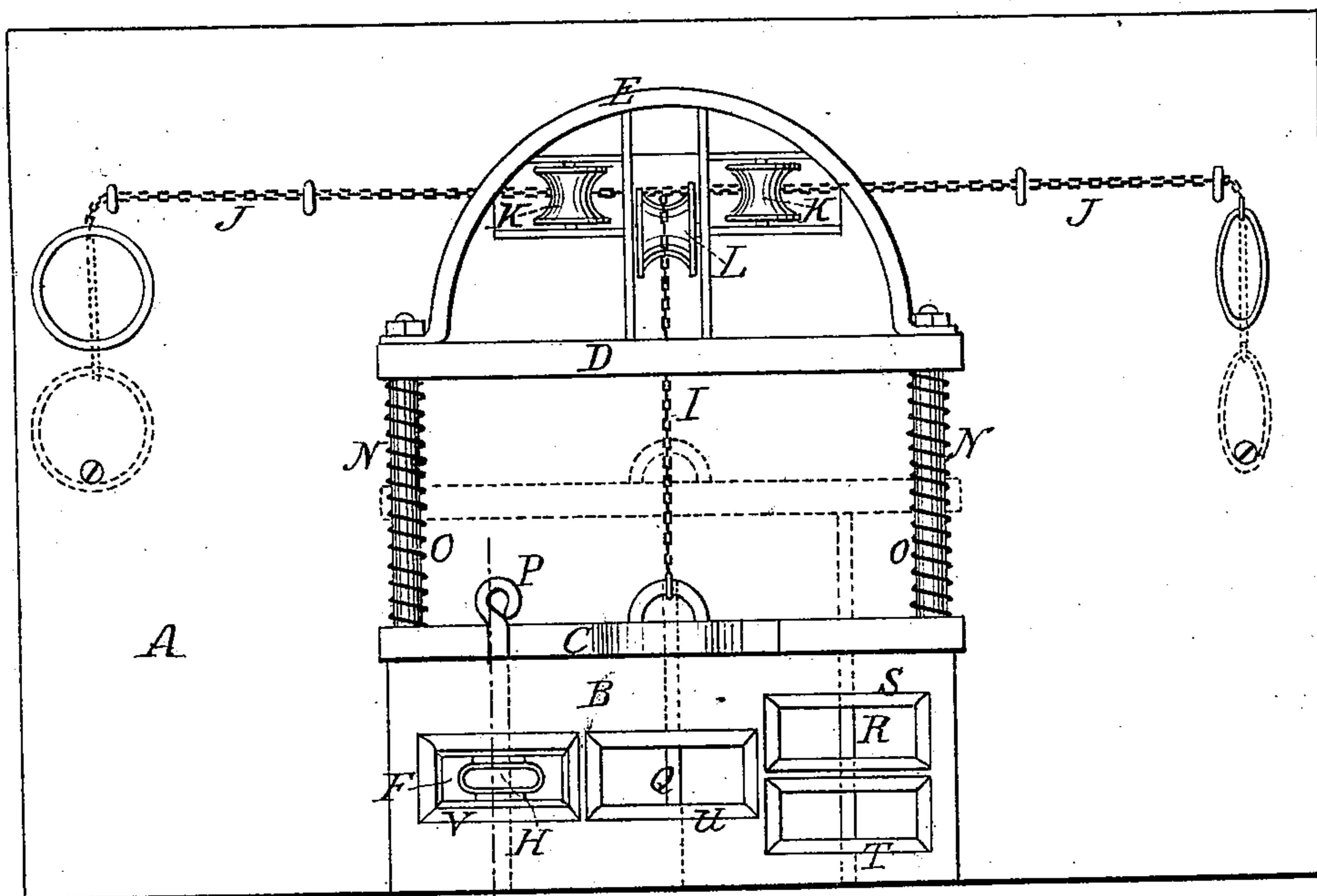
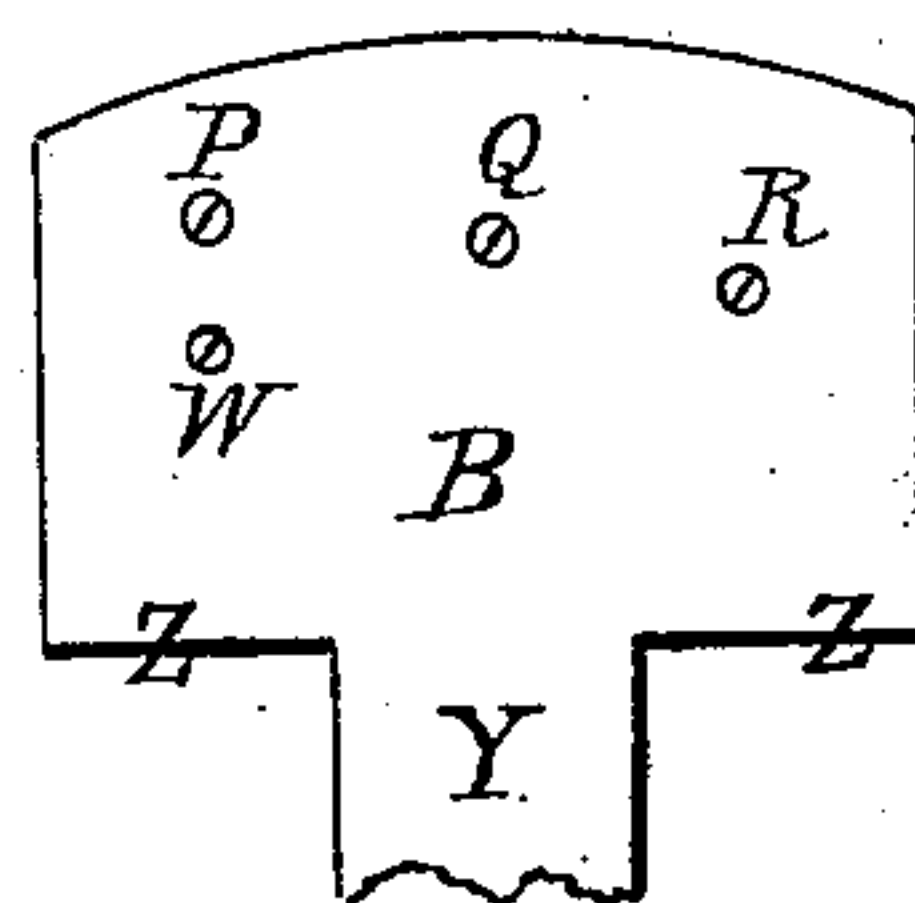


Fig. 2.

Fig. 3.



Fig. 4.



Witnesses.
W. Bond
E. B. Sherman.

Inventor.
Richard Wells
by West & Bond Attys.

United States Patent Office.

RICHARD WELLS, OF BLOOMINGTON, ILLINOIS.

Letters Patent No. 93,378, dated August 3, 1869.

IMPROVED RAILWAY CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, RICHARD WELLS, of the city of Bloomington, in the county of McLean, and State of Illinois, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an end or front view;

Figure 2, a partial section on line *x*;

Figure 3, a plan view of the link-supporter detached; and

Figure 4, an under or bottom view of the head of the coupling.

Like letters refer to the same parts in all of the figures.

The nature and object of my invention consist in so constructing a car-coupling, which is adapted to the use of double or single links, that the coupling-pins may be inserted or withdrawn without getting between the cars, by connecting the coupling-pins with a cross-bar and frame-work, and with cords or chains, which pass to the side of the car, as hereinafter more fully described.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same.

I design to make the coupling-head B of cast-iron, and attach it to any ordinary or suitable draw-bar, which draw-bar is attached to the car, and provided with springs in any of the ordinary modes.

The head or coupling B, when constructed for use, is made about eighteen inches wide, twenty-eight inches long, and about eight inches thick.

In the front end four openings, S, T, U, and V, are made, as shown.

The opening or hole V extends back into the head, nearly to the rear end of the head, and is provided with a link-supporter, F.

This link-supporter is made as shown at fig. 3, the front projections having grooves on their insides, to receive and hold the link H.

At the back end there is an opening or slot, G, through which the screw or bolt W passes, as shown at fig. 2.

This supporter is fitted into the opening V, so as to slide out and in, and so as to have some vertical play or movement, and at the rear end, between that and the end of the opening, I insert a coiled or other suitable spring, M, which serves to keep the link out against the bolt or pin P, so that it will enter the opposite head of the draw-bar, when two cars are brought together, and while in this position, the saddle F prevents the link from falling or inclining downward, so far as to make its entrance uncertain, or so far as to

necessitate stepping in between the cars, to guide it into the other head.

Whenever there is any necessity for such movement, the spring M will allow the link to pass back into the opening V, as it is only made of sufficient strength to insure the projection of the link when not in use.

The opening U is not designed to be used when two of these heads are brought together, but is to be used when brought in contact with cars not provided with this coupling.

On the side opposite to the opening V, I make a double opening, S and T, or such opening wide, with a partition, so that when loaded cars are coupled with empty ones, or those of different heights are brought together, bent links will not be required, nor so large a mouth necessary as is required for a single opening, which large opening renders the proper insertion of the connecting-pins somewhat uncertain, particularly if the links are loosely held in place, and is more liable to break the pins or bend them, and make their withdrawal difficult.

On the top of this head I place a cross-bar, C, which is extended nearly or quite across the head, and it is held in place by two standards or posts N.

The link-pins Q and R are permanently secured to this cross-bar, and they are held down continuously, and prevented from bounding out by the springs O, on the posts N.

The posts N are connected at the top by a cross-bar, D, and in the form shown by a bow, E.

Between the cross-bar D and the bow are placed standards, which support an anti-friction pulley, L.

If desired, the bow and standards can be dispensed with, and the pulley or roller L attached to the bar D, by being let into it.

On a plane nearly horizontal with L, I attach to the end of the car two anti-friction pulleys or rollers K, as shown, A representing a portion of the end of a car.

The chain or cord I is attached or fastened to the bar C by a staple, hook, or other suitable means, and passes up over the pulley L, and is then separated into two parts J, each part passing behind one of the pulleys K, and out to the side of the car, or nearly so, where they are provided with rings, or other suitable handles.

The back end of the head has its projections made at right angles with the draw-bar Y, so as to form square shoulders, as shown at fig. 4, which shoulders prevent the head from being driven so far under the car as to break or injure the top parts.

In operation, the cross-bar C is elevated by pulling either one of the chains or cords J far enough to withdraw the link-pins from the holes, as shown in red in fig. 1, where it may be held by the attendant, or by

passing the ring or handle over a pin or hook, properly located for that purpose.

When the links enter, the hold is released, and the springs O will return the link-pins to their places.

From this description it will be seen that the cars can be coupled or uncoupled, even when they are in motion, without the attendant stepping between them, making it perfectly safe to make or break up trains, with a certainty of the operation of the coupling.

Having thus fully described my improvement,

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the cross-bar C with the pin Q or R, and the posts N and springs O, substantially as specified.

2. The combination of the cross-bar C, provided with one or more link-pins, and suitable return-springs O, with the cords or chains I and J, and pulleys L and K, when constructed and operating substantially as shown and described.

RICHARD WELLS.

Witnesses:

W. T. RAGLAND,
JESSE BIRCH.