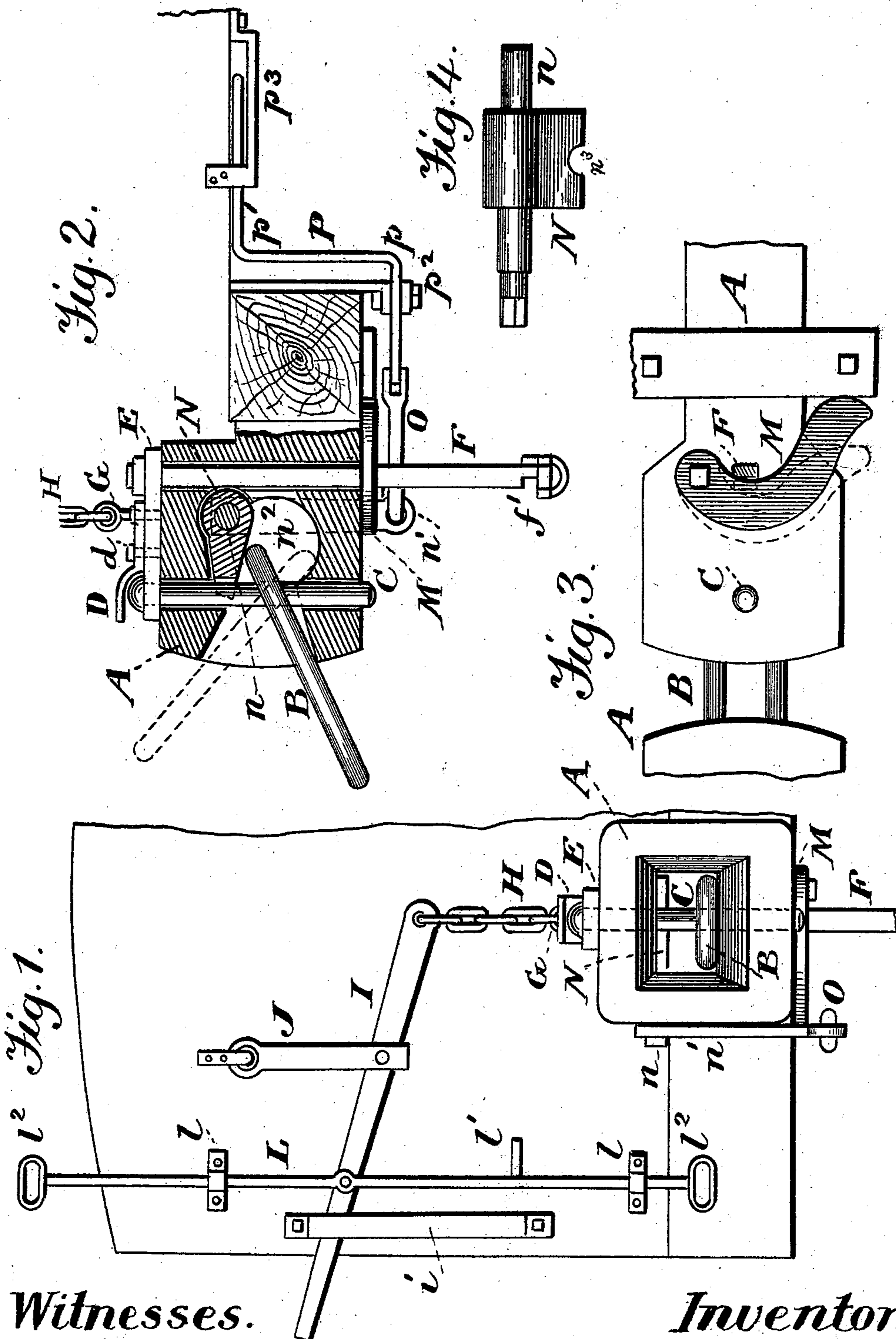


(No Model.)

J. WRIGHT.  
LINK AND PIN CAR COUPLING.

No. 528,896.

Patented Nov. 6, 1894.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

JOSEPH WRIGHT, OF COOKS, MICHIGAN.

## LINK-AND-PIN CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 528,896, dated November 6, 1894.

Application filed April 14, 1894. Serial No. 507,563. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH WRIGHT, a citizen of the United States, residing at Cooks, township of Inwood, in the county of Schoolcraft and State of Michigan, have invented certain new and useful Improvements in Link-and-Pin Car-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention relates to link and pin couplers for railroad cars and consists in the particular means employed to uncouple, to raise the link so as to couple with drawheads of different height, to support the pin, and to trip the pin so that it will couple with the link.

Figure 1 of the drawings is a front elevation; Fig. 2, a vertical longitudinal section of a drawhead provided with my improvements; and Fig. 3, a detail view of the trip, with its operative mechanism. Fig. 4 is a detail view of the cam on the cross shaft.

In the drawings A represents a drawhead; B, a link, and C a coupling pin. Over the head of pin C, I arrange the guard D to turn horizontally on a pivot  $d$  so that the pin may be removed from the plate E through which its shank passes and on which its head rests under the guard, which prevents it from being jarred out of the link. Through the rear end of the plate E passes a bolt F which is considerably longer than the pin C. The plate E carries on top an eyebolt G which connects by a chain H with the front end of a lever I fulcrumed in a hanger J from the car. This lever I is pivotally connected on its rear arm with a perpendicular rod L which works in the guides  $ll$  on car and has a handle  $l'$  at right angles thereto with a stirrup  $l^2$  at the top and bottom, the said stirrups being adapted to be worked up or down with the hand or foot, so as to raise or lower the plate E. The power end of the lever I is guided in the keeper  $i$  on the car. By this means the pin C may be raised to uncouple from the top or side of the car and when raised, the long rod or bolt F is made to rest on the

trip M under the drawhead while its nut is supported by plate E.

N is a cam, on the cross-shaft  $n$ , adapted to press the rear end of a link B so as to hold the front end at any desired height to enter a drawhead which may be at a greater or less elevation.  $n'$  is an arm fast on shaft  $n$  so that the latter may be turned in the arc of a circle to force the rear end of link into the drawhead cavity  $n^2$  and there hold it until the front end has entered an opposite drawhead.

The cam N may have a notch  $n^3$  in front to fit on the usually round link so as to avoid any possible lateral displacement.

Q is a pivoted link connecting the arm  $n'$  with the pull-rod P which is angled at  $p p'$  and slides in the bearings  $p^2 p^3$ . When the bolt F is raised, the rod O throws the trip M into position to support the same by means of the shoulder  $f'$ .

The pullrod P extends transversely of the drawhead with its free end extending through the bearing  $p^3$ , at one side of car, while its front end is connected by the cross-rod O with the vertical arm  $n'$  of the shaft  $n$ . Hence the movement of rod P actuates said shaft.

Having thus described all that is necessary to a full understanding of my invention, what I claim, and desire to protect by Letters Patent, is—

1. The coupling pin with head thereon, loose plate through which its shank passes and on which its head is supported, and the pivoted guard, all combined, constructed and arranged substantially as shown, for the purpose specified.

2. The long bolt F having the notch  $f'$  at its lower end in combination with the pivoted trip M working in said notch, to hold up the coupling pin in the manner described.

3. A coupling-pin bolt F having the notch  $f'$  at its lower end and the pivoted trip M in combination as shown with the pivoted rods  $n' O$  and the pullrod P as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH WRIGHT.

Witnesses:

NORMAN McDONALD,  
JOHN FAGAN.