

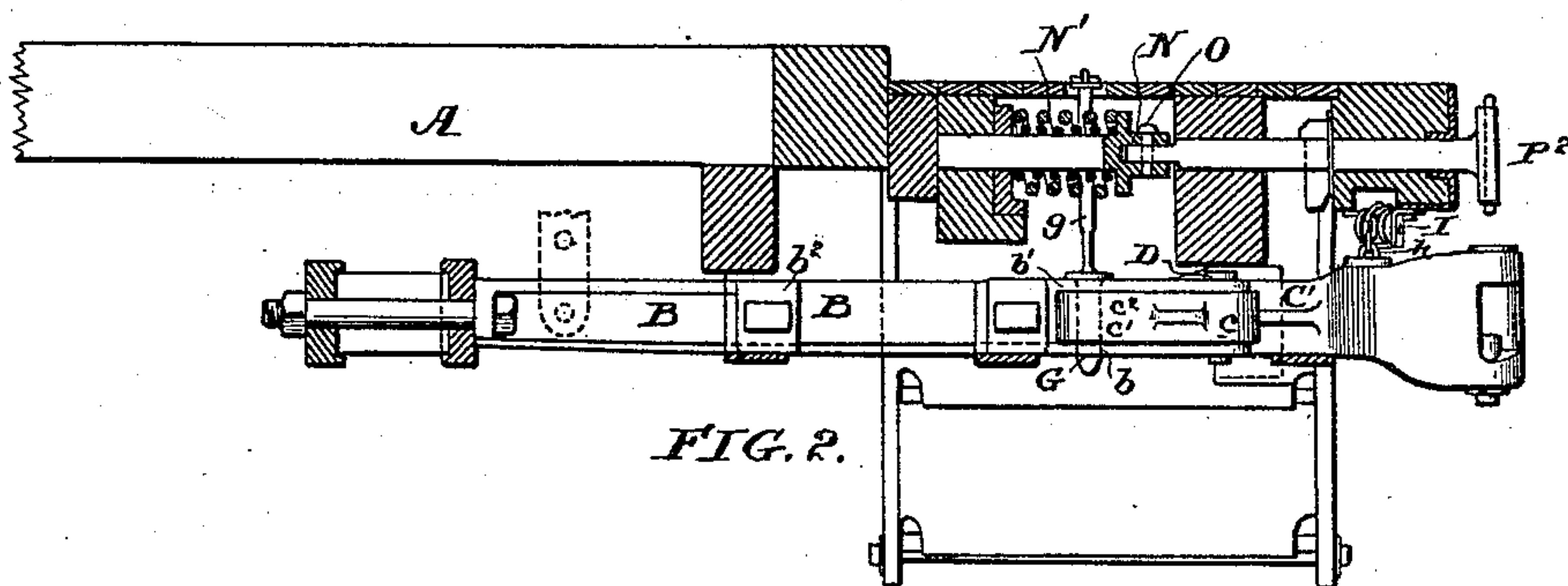
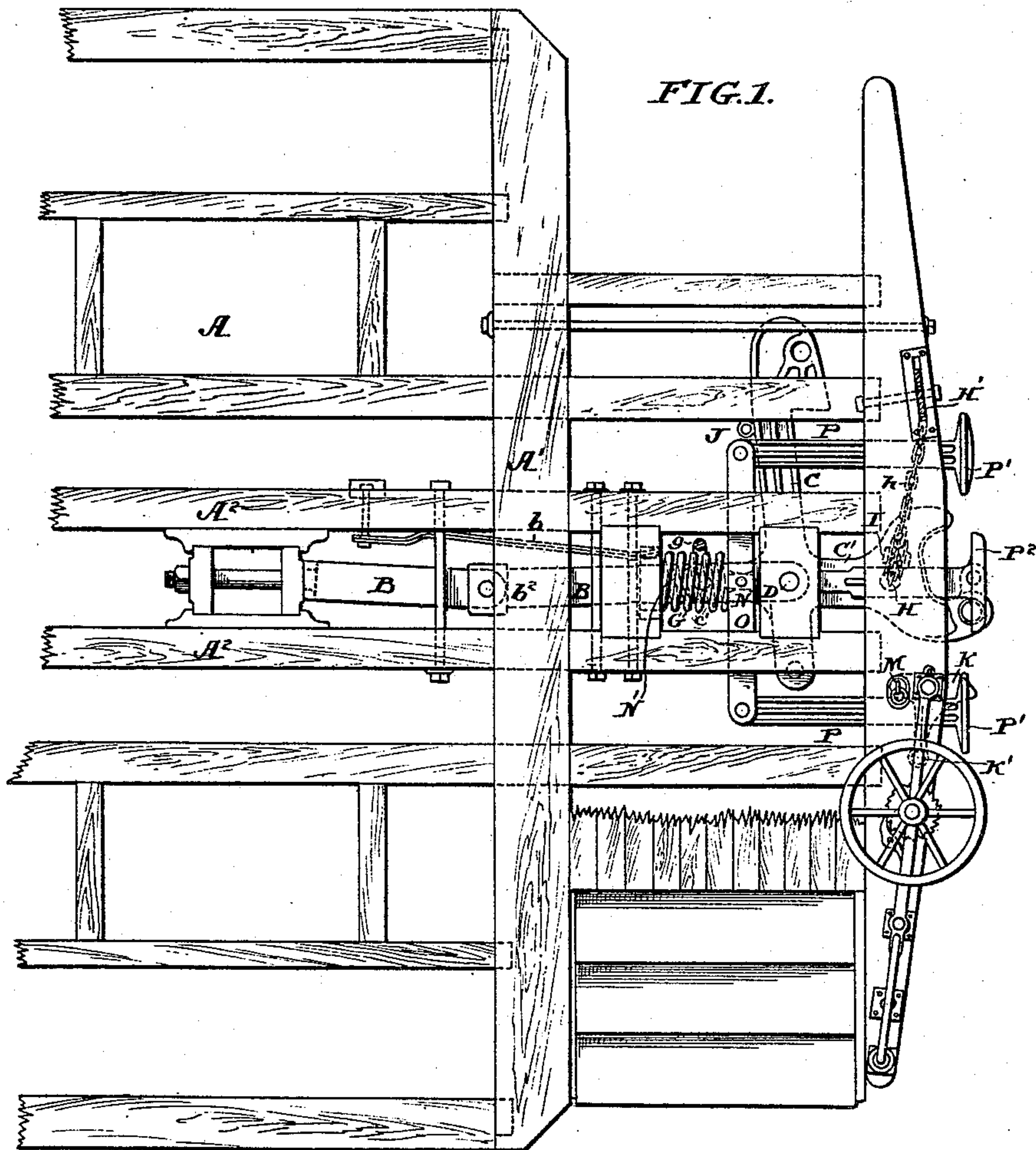
(No Model.)

2 Sheets—Sheet 1.

S. H. HARRINGTON.  
CAR COUPLING AND BUFFER.

No. 455,326.

Patented July 7, 1891.



WITNESSES:

Henry Dwyer  
Walter Farnsworth

INVENTOR:

Samuel H. Harrington  
by his attorney  
James T. Chambers

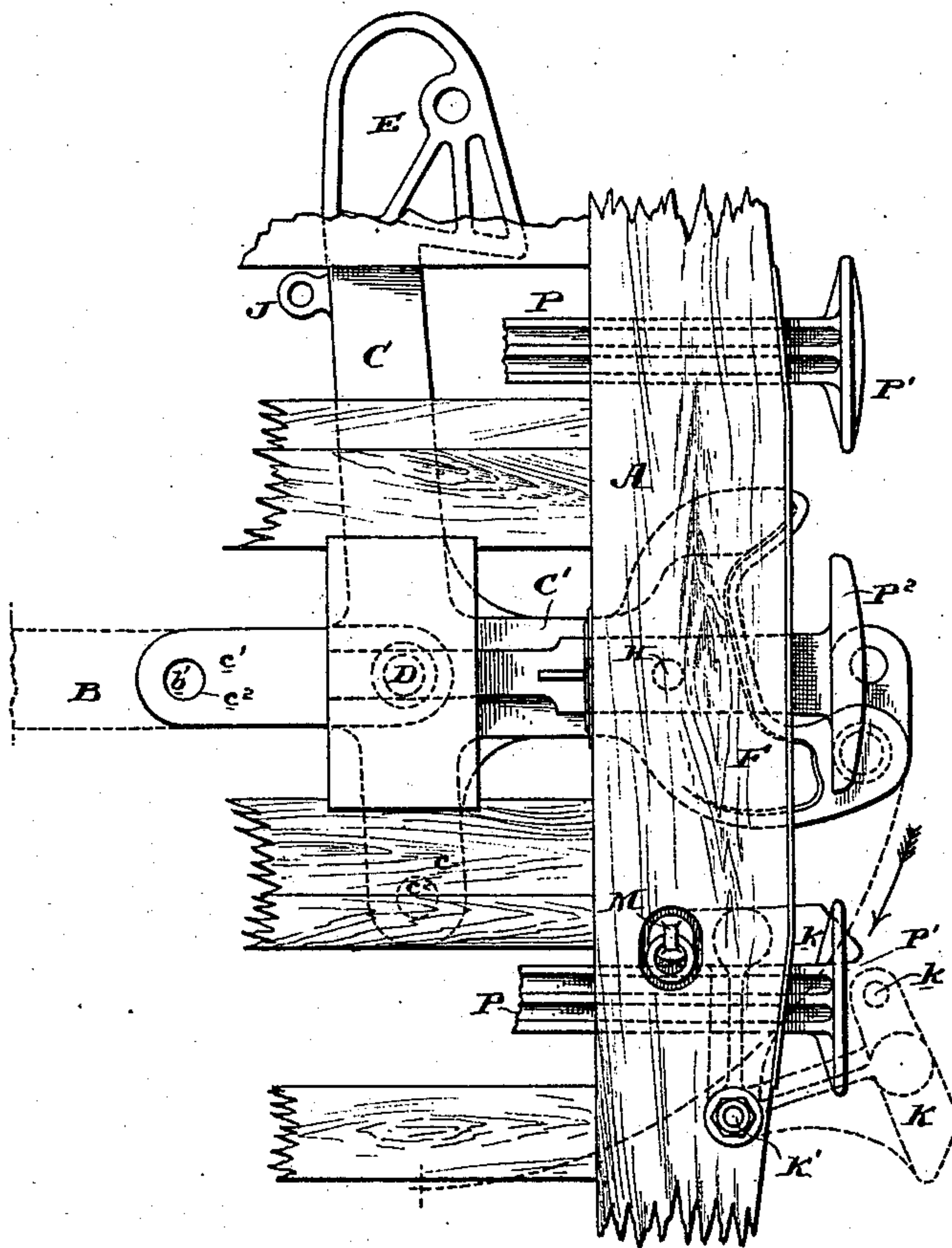
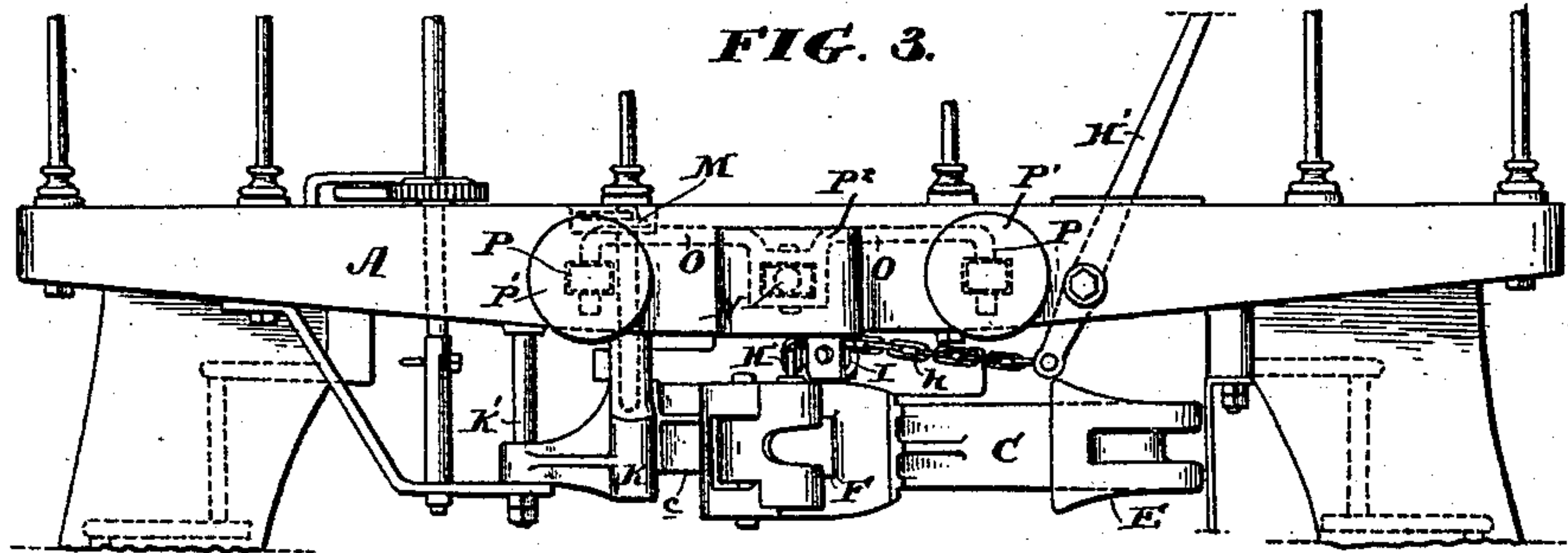
(No Model.)

2 Sheets—Sheet 2.

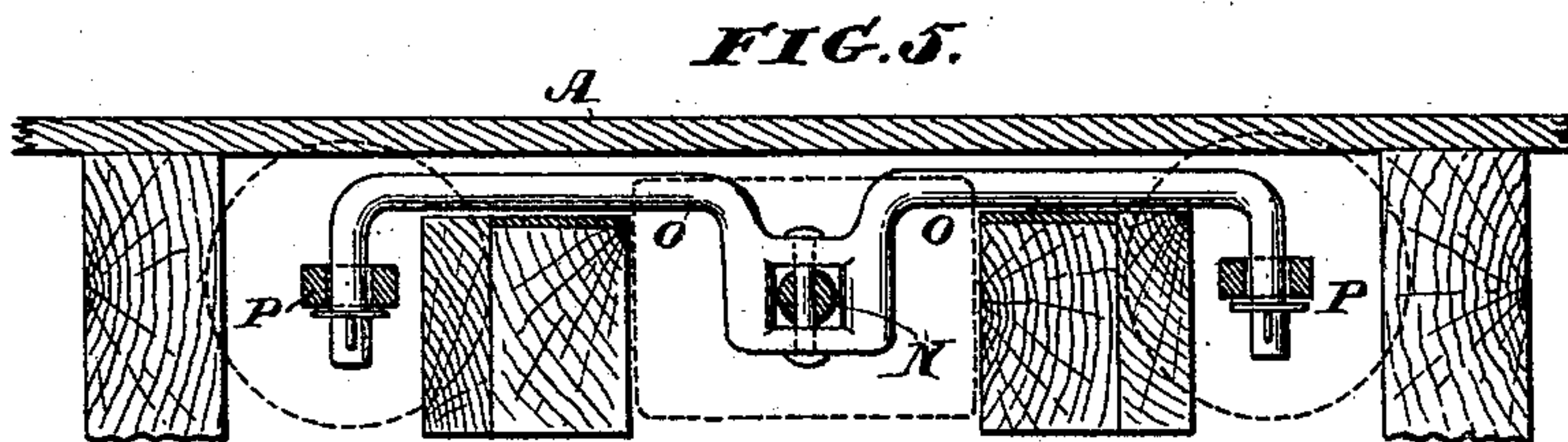
S. H. HARRINGTON.  
CAR COUPLING AND BUFFER.

No. 455,326.

Patented July 7, 1891.



**FIG. 4.**



WITNESSES:  
*Henry D. Dwyer*  
*Walter Farnsworth*

INVENTOR:  
*Samuel H. Harrington*  
by his attorney  
*Frederic T. Chambers*



# UNITED STATES PATENT OFFICE.

SAMUEL H. HARRINGTON, OF BINGHAMTON, NEW YORK.

## CAR COUPLING AND BUFFER.

SPECIFICATION forming part of Letters Patent No. 455,326, dated July 7, 1891.

Application filed February 12, 1890. Serial No. 340,166. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL H. HARRINGTON, of Binghamton, county of Broome, State of New York, have invented a certain new and useful Improvement in Car Couplers and Buffers, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to the coupling mechanism of railway-cars, and has for its object to provide a coupler by which connection can be made with another car equipped with either the familiar Miller coupler or with the style of coupler familiarly known as the "Janney" or "master car-builders" type.

The nature of my improvements will be best understood as described in connection with the drawings in which they are illustrated.

In said drawings, Figure 1 is a plan view of the under or floor framing of a railway-car having my improved coupling device secured thereto. Fig. 2 is a side elevation taken on the central line of Fig. 1, but showing the draw-bar and coupling-head unsectioned. Fig. 3 is a front elevation; Fig. 4, a plan view, on an enlarged scale, showing the end of the draw-bar and the double swinging coupler attached to it, also showing the pivoted guide-plate, to which reference will be made hereinafter; and Fig. 5 is a front view of the buffer connections with the buffers cut off.

A is the framing of the car; B, the draw-bar, which, as shown, is of the kind used in connection with the Miller coupler, the front part being pivoted at  $b^2$  to the back part, and a spring  $b$ , Fig. 1, placed so as to press against the pivoted front end of the draw-bar and hold it in central position. On the end of the movable section of the draw-bar B, which, of course, is shorter than where connected directly with the Miller coupling-head, I secure by means of a pivot-pin D arms C C', united at their base and diverging at an angle of substantially ninety degrees, the pivot-pin D passing through the union of the arms. On the end of the arms C C' are secured coupling-heads E and F, E being of the familiar Janney type and F of the master car-builders' type. By turning the united arms C C' upon the pivot D either one of them may be brought in line with the draw-bar B, the other

being thrown back beneath the platform of the car.

It is necessary to provide a device for securing the arm in use in line with the draw-bar. Any convenient latch or pin may be used for this purpose; but I prefer to form on the united arms C C' heel-extensions  $c c'$  in line with the respective arms and form in them pin-holes  $c^2$  at equal distances from the central pivot upon which the arms turn.

In the draw-bar B, I form a pin-hole  $b'$  at the same distance from the pivot D, and by means of a pin G secure or latch the said heel-extensions to the draw-bar. The pin G is actuated by means of a connection  $g$ , extending to the platform of the car, as shown.

H' is a lever used for uncoupling cars. Connected with it is a chain  $h$ , on the end of which a hook should be placed, and which when used in connection with the master-car-builders' type of coupler, passes over a pulley I, arranged above the latch of the coupler, and is hooked into said latch, which is marked H in the drawings.

When the Miller coupler E is in operative position, the chain H is removed from the pulley I and hooked into any convenient lug, such as J, on the coupler-head, so that a pull on the lever H' will draw the coupler-head and draw-bar back, compressing the spring  $b$ , said spring of course tending to return the coupler to central position when the lever-pressure is released.

K is a guide plate or stop such as is in general use with the Miller coupler; but as used it is firmly and immovably attached to the car-framing.

In order to give room to the coupling-head F to swing beneath the platform, I secure the guide-plate K to a pivot K', as shown, so that it can swing out to the position indicated by dotted lines in Fig. 4, when it is necessary to turn the coupler-head F under the car. In order to hold the guide-plate in position when it is in use in connection with the coupling-head E, I form a perforation  $k$  in it, into which a latch-pin M is dropped.

Referring, next, to the buffer used in connection with my coupler and as a part of the coupling apparatus, I will note that it is customary with the Miller coupler to use a central buffer, while with the master car-build-



ers' type it is customary to use two buffers, placed one on each side of the platform, these arrangements having particular advantages in each case. In the drawings, N is the buffer-supporting bar, and N' the spring and P<sup>2</sup> the buffer, all combined and arranged in the way usual with the Miller coupler. To the bar N, I have pivotally attached a yoke or lever O, to the ends of which are connected  
 10 buffer-supporting bars P P, supporting the buffers P' P'. This device, as will be seen, is easily attached to the usual Miller rigging, and enables me to provide at the same time buffers suitable for the two varieties of couplers of which I make use.

The mode of operation of my improved device has been sufficiently described in connection with the details of the drawings showing its construction. It will be noted that it  
 20 can easily be applied to any car having the Miller rigging and with but slight alterations in its construction, and that all the requirements of the Miller and master car-builders' construction are fully met, while the device  
 25 is simple in construction, easily adjusted, and easily operated.

My invention, as above explained, is especially adapted to combine with a single draw-bar coupling-heads of the Miller and master  
 30 car-builders' types, both of which belong to the general class known as "vertical-plane couplers." Its essential feature, however, consists in the combinations, with the draw-bar, of the pivoted arms C C', each having an entirely separate and independent coupling-head secured to it, the arrangement being  
 35 such that the one head is entirely withdrawn from the front of the draw-bar and folded back under the car when the other head is arranged for use.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car-coupler, the combination, with  
 45 the draw-bar, of arms C C', pivoted thereto and adapted to form an extension thereof when turned in line therewith, heel-extensions c c', extending from the arms beyond their pivoted connection with the draw-bar,  
 50 a latch-pin arranged to lock said heel-extensions to the draw-bar, and separate and independent coupling-heads secured on each of the arms, all substantially as and for the purpose specified.

2. In a car-coupler, the combination of a  
 55 pivoted draw-bar B, a spring b, arranged to hold the bar in central position and permit it to be moved to one side, diverging arms C C', pivoted to the draw-bar, separate and independent coupling-heads E F, secured on  
 60 the ends of said arms, and a latch-pin or its equivalent arranged to secure the arms C or C' to and in line with the draw-bar, substantially as and for the purpose specified.

3. In a car-coupler, the combination of a  
 65 pivoted draw-bar B, a spring b, arranged to hold the bar in central position and permit it to be moved to one side, diverging arms C C', pivoted to the draw-bar, separate and independent coupling-heads E F, secured on  
 70 the ends of said arms, a movable guide-plate K, pivoted to swing out of the way of coupling-head F, and a latch-pin or its equivalent arranged to secure the arms C or C' to and in  
 75 line with the draw-bar, substantially as and for the purpose specified.

4. In combination with a pivoted draw-bar B, a spring b, arranged to hold the bar in central position, arms C C', diverging from a common center and pivoted at their junction  
 80 to the draw-bar, coupling-heads E F, secured on the ends of said arms, a latch-pin or its equivalent arranged to secure the arms C or C' to and in line with the draw-bar, a pulley I, placed so as to come above the latch of coupling-head F, a chain h, a lever H', connected  
 85 to said chain, and a lug J, secured to coupler E, all substantially as and for the purpose specified.

5. In combination with a railway-car, a  
 90 double-headed coupler secured to a draw-bar, as described, and buffer-spring N', bar N, resting against said spring, lever O, pivoted centrally to rod N, and bars P P, having buffer-plates P' P', secured to their ends pivoted  
 95 to lever O.

6. In combination with a railway-car, a double-headed coupler secured to a draw-bar, as described, and buffer-spring N', bar N, resting against said spring, buffer-plate P<sup>2</sup>, attached to said bar, lever O, pivoted centrally  
 100 to rod N, and bars P P, having buffer-plates P' P' secured to their ends pivoted to lever O.

SAMUEL H. HARRINGTON.

Witnesses:

T. F. KEOGH,  
 A. W. CUMMING.