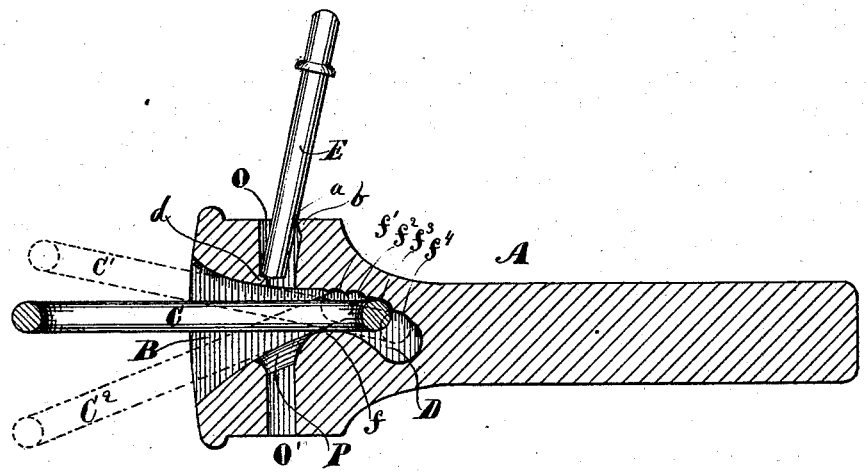
B. C. PAINE.
Car-Coupling.

No. 216,968. Patented July 1, 1879.



WITNESSES;
L. E. Jones
George H. Remmitt

INVENTOR.
Burrett C. Paine.
Per E. C. Brink.
his Attorney

UNITED STATES PATENT OFFICE.

BARRETT C. PAINE, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO HIMSELF AND CHARLES B. POYNTZ, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **216,968**, dated July 1, 1879; application filed December 16, 1878.

To all whom it may concern:

Be it known that I, BARRETT C. PAINE, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Draw-Bars for Coupling Cars, of which the following is a description, reference being had to the accompanying drawing.

The object of my invention is to construct a draw-bar head in such a manner that the link can be held at any required position for coupling, and the coupling-pin held in position to drop into the link when one draw-bar comes in contact with another.

My invention consists in the new construction and arrangement of the link-chamber and pin-holes of a draw-bar head, and in the new combination of parts, as will be hereinafter fully described and set forth.

In the accompanying drawing, my newly-constructed draw-bar is represented by a single longitudinal sectional view, in which—

A represents the draw-bar, having the link-chamber B in the head.

The mouth of the chamber B is of the ordinary construction—*i. e.*, flaring from the end to the pin-holes—so as to permit the link to be adjusted sidewise, up or down, as may be required. The rear part of the link-chamber is curved or inclined downward, as shown at D. The upper part of the curved chamber D is provided with notches f^1 f^2 f^3 f^4, for holding the inner end of the link C in various positions, as shown. The curved part *f* at the bottom of the link-chamber forms a fulcrum back of the pin-hole for the link C to rest on. Thus the link C is supported and held at any desired angle, as shown at C C^1 C^2.

The pin-hole O O′ is of peculiar construction, to wit: The upper hole, O, is provided with an inward-projecting lip, *b*, at the top and rear side, which forms a support for the pin E, as shown. The lower front inner edge of the hole O is also provided with an inward projection, *d*, on which the lower end of the pin E rests, as shown. The lower hole, O′, is provided with a flaring upper end, P, to guide the end of the pin into the hole O′ when said pin is dropped through the link.

The pin E may be provided with the notch *a* to fit over the projection *b*, as shown; or the notch *a* may be dispensed with.

The operation of my improved device is as follows: The link C is first placed in the chamber B, and the rear end placed in any one of the notches that will hold the link in its proper position for making the coupling. The pin E is then inserted in the hole O, with its lower end resting on the projection *d*, or the notch *a* hooked on the projection *b*. The link and pin are then in position to make a coupling, and when the draw-bar strikes another the link enters the other chamber, and the concussion causes the pin to drop through the link into the hole O′.

The pin E may be set in the position shown in the drawing, and the link be held in the opposite draw-bar, so that when the link enters the empty chamber the pin will drop through the link and make the coupling.

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

1. The draw-bar A, having the link-chamber B, with the downward curved or inclined part D, when said part D is provided with notches f^1 f^2 f^3 f^4 in its upper side, and curved fulcrum *f* at the bottom, back of the pin-hole O′, substantially as shown and described.

2. The draw-bar A, having the link-chamber B, with downward curved or inclined part D, provided with notches f^1 f^2 f^3 f^4, fulcrum *f*, and pin-hole O, when said pin-hole is provided with an inward-projecting ledge, *d*, at the lower inner edge, substantially as shown and described.

3. The draw-bar A, having the link-chamber B, with downward curved or inclined part D, provided with notches f^1 f^2 f^3 f^4 above and the fulcrum *f* below, and the pin-holes O O′, when the hole O has a ledge, *d*, for supporting the pin, and the hole O′ is provided with a flaring mouth, P, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

B. C. PAINE.

Witnesses:

E. O. FRINK,

GEORGE RENNETT.