

John D. Barnard.

No. 118,836.

Car Bumper. Patented Sep. 12, 1871.

Fig. 1.

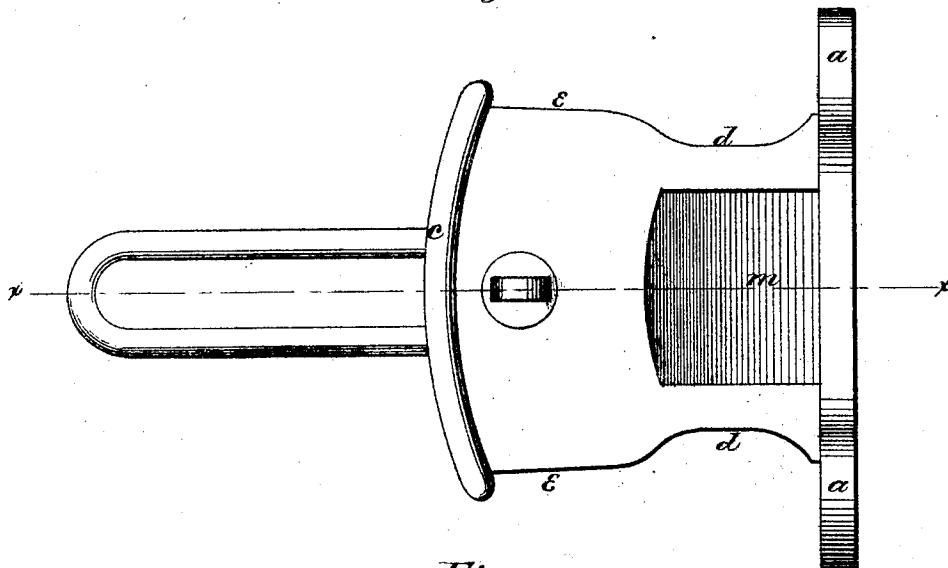
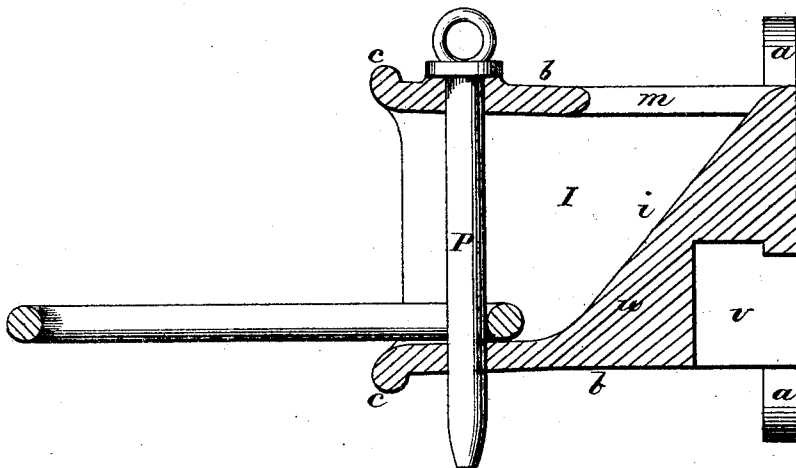


Fig. 2.



Witnesses.

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att'y

UNITED STATES PATENT OFFICE.

JOHN D. BARNARD, OF FROSTBURG, MARYLAND, ASSIGNOR TO HIMSELF, R. C. PAUL, AND JOHN M. STANDISH, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 118,836, dated September 12, 1871.

To all whom it may concern:

Be it known that I, JOHN D. BARNARD, of Frostburg, in the county of Alleghany and State of Maryland, have invented an Improved Car-Bumper; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a top view, and Fig. 2 is a vertical section in the line *xx* of Fig. 1.

Similar letters of reference in the accompanying drawing indicate corresponding parts.

The old-fashioned short stout cast-iron draw-head, provided with flanges *a a*, through which it can be bolted to the frame of the car, and having nearly horizontal upper and under surfaces *b b*, curved flanged lips *c c*, a neck, *d*, contracted laterally but not to any extent vertically, and a head, *e*, expanded laterally, the outlines of the whole corresponding substantially to those shown in Figs. 1 and 2, has been by long experience proved to be so much superior practically to other devices for a similar purpose that it is superseding everything else for freight-cars, and coming into very general use on passenger-coaches. For the purpose of obviating certain disadvantages pertaining to this form of draw-head without departing from the general principles of its construction I make the draw-head with an opening, *m*, through the top of the casting, at the neck, said opening preferably extending from the head back to the supporting-flange *a*; and directly beneath this opening I incline

the floor *i* of the chamber I upward and backward from a point immediately behind the coupling-pin P to the rear edge of the opening, as shown in Fig. 2. The draw-head beneath and behind the incline *i* is preferably cast solid, as shown at *w*, to counteract the loss of strength at *m*, with a gain or socket, *v*, to aid in securing it to the car-frame or other support, if necessary.

The difference between my improved draw-head and the old form, therefore, consists in the opening *m* and incline *i*, and the operation and advantages of this improved construction are as follows: In the first place, when the cars are crowded together so that a link cannot be introduced or removed at the end of the draw-heads, it can be done through the opening *m*, thereby saving the necessity of starting up the train for the purpose. In the second place, the cars can be coupled or uncoupled at any time without going between them when they are in motion. They can be simply run together and then coupled by introducing or removing the links at the top of the draw-heads. In the third place, the links can be readily changed when the train is at rest, so as to regulate the slack of the couplings as desired.

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

A draw-head cast in one piece, with an opening, *m*, and an incline, *i*, arranged as described.

Witnesses: JOHN D. BARNARD.

M. T. DELANO,
THOS. G. PORTER.