

(No Model.)

C. J. BUMPUS.
CAR COUPLING.

No. 430,917.

Patented June 24, 1890.

Fig. 1.

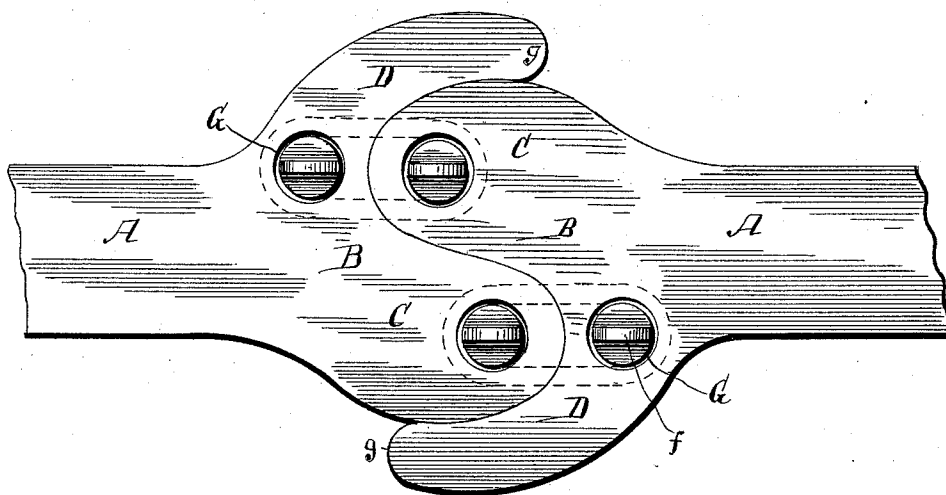


Fig. 2.

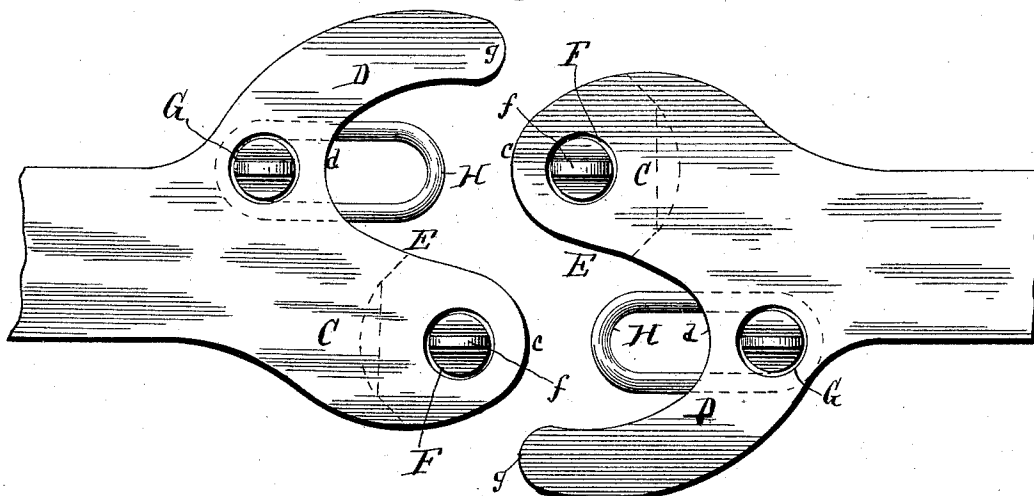
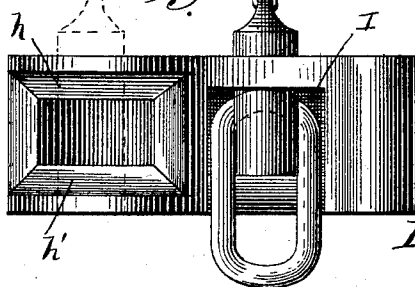


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES JASON BUMPUS, OF FAYETTE STATION, WEST VIRGINIA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 430,917, dated June 24, 1890.

Application filed April 29, 1890. Serial No. 349,895. (No model.)

To all whom it may concern:

Be it known that I, CHARLES JASON BUMPUS, a citizen of the United States, residing at Fayette Station, in the county of Fayette and State of West Virginia, have invented certain new and useful Improvements in 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.

This invention relates to car-couplings, and particularly to draw heads and bars.

The object of the invention is to provide cars with draw-heads which will at all times when the cars are coupled together have an even and uniform bearing on each other, no matter how uneven the tracks or what form of curve occurs in the track over which the cars travel.

A further object of the invention is to provide a draw-head which, when coupled to another like draw-head, will have a sufficient amount of bearing against each other to greatly assist in preventing the swaying and disagreeable jumping, and also by this uniform bearing of one head into another the danger of cars being becoming derailed is much obviated.

The invention consists in forming a double draw-head on a single draw-bar—that is, I cut out my draw-head in such a manner as to form a pin-hole on either side of the central line of the draw-bar.

The invention also consists in forming the face of a draw-head with symmetrical curves, with the pin-holes located at the same angle as such curves, as will be hereinafter more fully described, and set out in the claims.

In the accompanying drawings, forming part of this application, Figure 1 is a top plan view of my draw head and bar in position to be coupled. Fig. 2 is a similar view showing the draw-heads coupled. Fig. 3 is a front elevation of my improved draw-head with one of the coupling-links in place.

Like letters of reference denote like parts throughout the figures.

A denotes the draw-bar of any ordinary

construction, but must have sufficient metal at the end to form the draw-head B, although the head B may be formed of a separate piece and bolted or otherwise securely attached to the draw-bar A, which is formed with one side C more than twice as thick as the opposite side D. The face E of the draw-head B is formed by a symmetrical compound curve made at an angle of about forty-five degrees from the draw-bar, which leaves the face E to present from top view an S-shaped head. By forming the draw-head S-shaped the portion C has a convex surface-bearing *c*, and the portion D has a concave surface-bearing *d*. The portion C is provided near its face with a coupling-pin hole F, adapted to receive an ordinary coupling-pin *f*, and on a line with the S-shaped curve, at an angle of forty-five degrees near the face *d* of the concave portion D, is located a like hole G. The portion D is extended horizontally as far as the face *c* of said portion D, and the end *g* of said portion D rounded so that the draw-heads when being coupled will be more certain to move into their proper position, as shown in Fig. 2. The main or central portion of the concave bearing-surface *d* is cut out to form an enlarged opening for the coupling-link H. The top and bottom of this cut-out has a curved surface *h* and *h'*, respectively, so that the coupling-link may have a clear and free entrance. In the face *c* of the convex portion C is formed the link-seat I by casting therein or cutting out a sufficient amount of metal to allow the coupling-link to fit into each space or seat I so closely that the coupling-pin will have no play in any direction. It is intended that the link shall fit into its seat so rigidly that the connection between the draw-head B and the link H will be equally as firm as though they were cast together.

By constructing draw-heads with the S-shaped bearing-surface, as shown, and also each head with the extension G, which laps over the outside of the portion C of the adjoining head, there is little or no danger of the heads, and therefore the cars, becoming separated by the loss of or displacement of one of the coupling-pins; and should the coupling-pin on the same side of both heads become broken or displaced the coupling-link will still remain in its place as long as

the coupling-pins on the opposite side keep in proper position. Thus it will be observed that it would be impossible for the draw-heads after being coupled to sway or become uncoupled by any ordinary movement of the cars, for the extension is constructed with sufficient strength to obviate such danger.

In coupling and uncoupling cars by means of my draw-head one pin from each head is to be removed, leaving a coupling-link firmly secured in its seat of both heads. It has been found that this arrangement materially assists the draw-heads to assume their proper place.

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

1. In combination with a car-coupling, the draw-head having an **S**-shaped bearing surface or face, such face having an enlarged opening for the reception of the coupling-link of a separate draw-head, said surface or face also having a link-seat formed therein,

substantially as shown and described, and for the purpose set forth.

2. The draw-head having a convex bearing-surface *c* provided with the coupling-link seat *I*, in combination with the concave bearing-surface *d*, having an enlarged opening and an extension *g*, substantially as shown and described, and for the purpose set forth.

3. In combination with a car-coupling, a draw-head having an **S**-shaped face, and provided with coupling-pin holes on the same angle with the said face, one portion of which face being provided with a coupling-link seat and coupling-pin, whereby said link is rigidly secured in the said seat, substantially as shown and described, and for the purpose set forth.

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

CHARLES JASON BUMPUS.

Witnesses:

WAYNE BUMPUS,
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