

G. WORDEN.
Car-Couplings.

No. 134,503.

Patented Dec. 31, 1872.

Fig. 1.

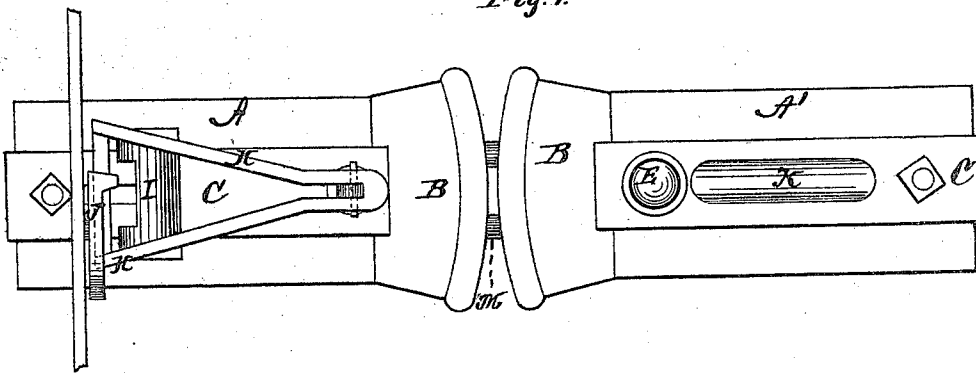
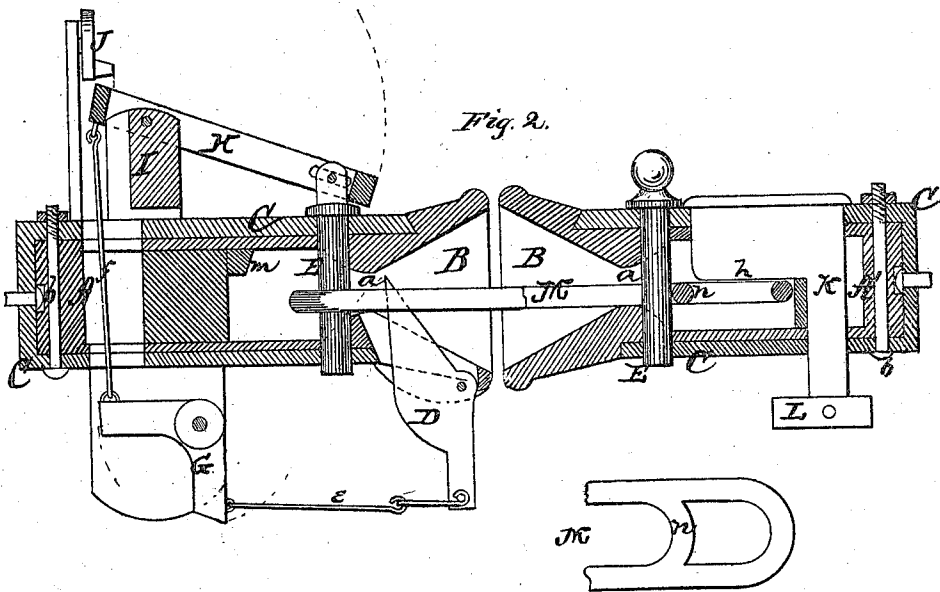


Fig. 2.



Witnesses:

Henry N. Miller
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UNITED STATES PATENT OFFICE

GEORGE WORDEN, OF PITTSBURGH, PENNSYLVANIA.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. 134,503, dated December 31, 1872.

To all whom it may concern:

Be it known that I, GEORGE WORDEN, of Pittston, in the county of Luzerne and in the State of Pennsylvania, have invented certain new and useful Improvements in Car-Couplings; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

My present invention is intended as an improvement upon the car-coupling for which Letters Patent No. 122,509 were granted to me January 2, 1872; and the nature of my invention consists, first, in a wrought-iron band surrounding the cast-iron draw-head on three sides—top, rear and bottom; second, in a simplification of the lever arrangement operating the coupling-pin; third, in the construction of a weighted slide for holding the link in one draw-head in proper position for inserting in the opposite draw-head.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view, and Fig. 2 a longitudinal vertical section, of my improved car-coupling.

A and A' represent the two corresponding or opposite draw-heads of two adjoining railroad cars. These draw-heads are each provided with a mouth, B, which is flaring on all sides to facilitate the entrance of the coupling-link, and the throat *a* is merely sufficiently large to admit of the passage of the link. Beyond or in rear of the throat *a* the interior of the draw-head is enlarged on all sides, so that the inner end of the coupling-link will have free play to allow the outer end of the same to accommodate itself to the position of the opposite draw-head, both in coupling and when running around curves, or at any other time when the draw-heads are not exactly opposite each other. In the top and bottom of the cast-iron draw-head is made a groove of suitable width and depth, extending from any desired point on the flaring mouth B to the rear end, and said grooves are connected by a similar groove in the back end of the head,

thus forming one continuous groove around three sides of the draw-head. In this groove is placed a continuous wrought-iron band or strap C, which is fastened at the rear end by a vertical bolt, *b*. The upper front end of the band C is beveled, as shown in Fig. 2, and fits in a corresponding bevel on the draw-head, thus holding said end in its place. This wrought-iron band or strap C gives additional strength to the cast-iron head, and even if the head should break the wrought-iron band still remains and holds the cars together, the coupling-pin E passing through both ends of said band, and the rear portion of the same secured by one or more bolts, *d*, to the end of the car. D represents the lever, pivoted in the lower part of the mouth B, on the draw-head A, the lower end of said lever being by a rod or chain, *e*, connected with an L-shaped lever, G, which in turn is, by a rod, *f*, connected with a lever, H, on top of the draw-head. The levers D and G, with connecting-rods *e* and *f*, are the same as described in my former patent, while the difference consists in the lever on top of the draw-head.

In my former patent I had two levers combined on top of the draw-head to raise the coupling-pin. In the present case I use only one lever, H, which is somewhat of a triangular form, pivoted to a standard, I, on the top of the draw-head, at or near the rear end. The rod *f* is attached to the base of said frame or lever, and at the outer end is pivoted the upper end of the coupling-pin E, the pivot of said pin passing through slots in the lever or frame, as shown in Fig. 2.

The operation of coupling is precisely the same as in my former case, the coupling-link strikes the upper end of the lever D, turning the same on its pivot, which draws the pin E upward till the end of the link has passed the lever, when the pin falls down of its own weight into the link.

For uncoupling, a small lever, J, is pivoted to the end of the car, which is to be turned to depress the rear end of the lever H, which raises the pin, allowing the coupling-link to be drawn out.

The draw-head A' is provided with a sliding bar, K, which is capable of moving up and down in the draw-head, its lower end being provided with a weight, L, and its upper part having a

shoulder, *h*, under which the inner end of the link is held in position for coupling into the draw-head A. If two draw-heads A should come together there is a projection, *m*, in the inner end of the same to hold the link steady.

M represents the coupling-link, which is of the same form as the ordinary coupling-link, but has near one end a cross-bar, *n*, curved, as shown, so that the coupling-pin may be made to engage either with the end of the link or with said cross-bar, thus making it either a long or a short coupling, as may be desired.

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

1. A wrought-iron band or strap, C, placed around the top, rear end, and bottom of a

draw-head, substantially as and for the purposes herein set forth.

2. The triangular pivoted frame or lever H, in combination with the pin E, levers G D, and connections *f c*, substantially as and for the purposes herein set forth.

3. The weighted slide K provided with the shoulder or offset *h*, and arranged in the draw-head A', substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of July, 1872.

GEORGE WORDEN.

Witnesses:

ISAAC EVERETT,
BEN. PRICE.