

(No Model.)

C. W. DICKEY.
CAR COUPLING.

No. 251,031.

Patented Dec. 20, 1881.

Fig. 1.

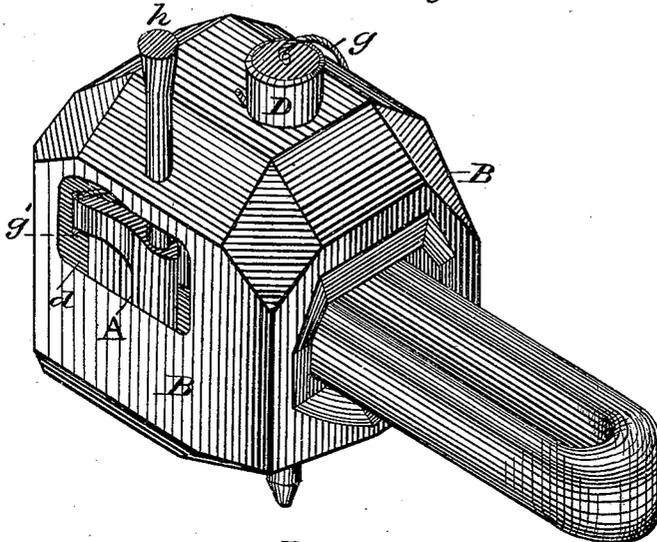


Fig. 2.

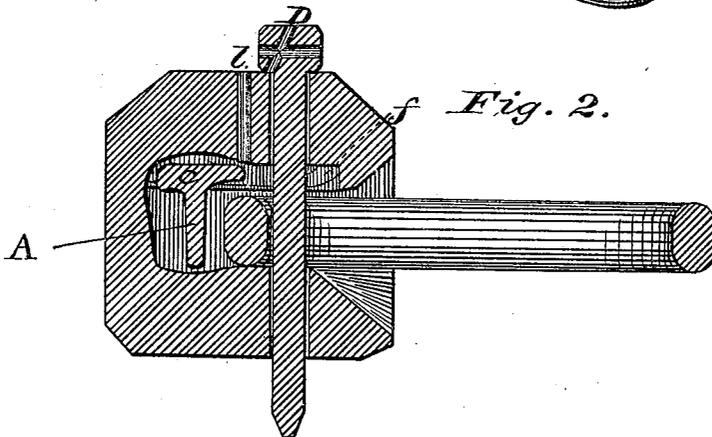
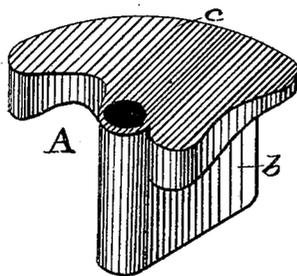


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 251,031, dated December 20, 1881.

Application filed October 26, 1881. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE W. DICKEY, a citizen of United States, residing at Galloway, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Car-Couplings; and I do hereby 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 or figures of reference marked thereon, which form a part of this specification.

The object of my invention is to construct a car-coupling the parts of which are simple in form and which may be easily cast, having at the same time great strength and durability, and possessing in a greater degree than heretofore adaptability in all positions and in all directions in coupling and uncoupling, ease and safety in operation, and a greater general efficiency for all purposes of a car-coupling. I accomplish these improved results by the structure illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a draw-head, showing the different parts of my invention in position after coupling. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a detached view of a swiveled weight or block, the construction and operation of which are hereinafter described.

The same letters refer to similar parts throughout the several views.

A represents a swivel block or weight of the form shown in Fig. 3, its bottom part or leaf consisting of the vertical piece *b*, and its top of flat part *c* having a rim of an irregular rounded form, which projects over and beyond the bottom, and a knuckle provided with a hole through which to insert a pin. That part of the top of block A which projects is beveled from the shoulder at the knuckle, in order to admit the link to slide freely beneath it into the draw-head. The front part of the rim next to the knuckle, fitting into recess, is of shape and sufficient strength to support the link at or near a horizontal position.

B is a draw-head, provided with a recess or socket of proper form to accommodate the swivel-weight A, which is inserted in the draw-

head through aperture *d*, and held in place in the draw-head by pin *h*, upon which it swings. The draw-head is also provided on one side of the recess, near the top, with curved lip or flange *f*, (shown in Fig. 2,) which forms a support and guide for the flat rim of the hinged block as it is swung to and fro within the said recess, and which also serves to sustain the link in a horizontal position. The top of said block is made broad and slightly concave in its center, the better to hold the coupling-pin D in position and prevent it from jumping out. The recess in the draw-head for holding the hinged block is made deeper at the back than at its front end by concave upper and lower surfaces at that portion, in order to better provide for placing the block in position and give free access thereto. The mouth of the draw-head is made flaring on all sides, in order to afford a free entrance from different directions of the coupling-link. The draw-head is also constructed full and convex in shape at upper part, in order to sustain the link in an upright position.

D is a coupling-pin, to be constructed square or elliptical in cross-section, in order to prevent it from turning while in use and give to it greater strength. It is provided at its upper end with a rope, flexible rod, or chain, *g*, the other end of the chain being passed through the hole *l* in the draw-head and connected to the outer curved end of the block A, as shown at *g'* in Fig. 1. The chain is attached to swiveled weight through the aperture *d*.

G is a link of the ordinary construction, and the draw-head should be of a little greater depth than one-half the length of the link.

These appliances are to be adapted to any and all link-couplings, and to be used with the chain attachment from top of platform or car, or can be operated from the ground by substituting in place of the chain to operate the swiveled block a hand-hold placed at the back thereof. This hand-hold may be formed by extending the rear portion of the top of the swivel-block through aperture *h*.

The operation of the coupling is as follows: When the draw-head remains uncoupled the coupling-pin is inserted part way in draw-head, and rests upon the upper concave surface of the swinging block, and by its weight assists in holding said swinging block in place. When

it is desired to couple, the link enters the recess of the draw-head, forces back the block, and the pin falls to its head through the link and hole in the bottom of the draw-head. In
5 uncoupling, the cord or chain *f* is used to pull out the coupling-pin, and at the same time and motion the swinging block is drawn swiftly forward against the inner end of the link, throwing it forward, and thus preventing its retention
10 by cramping or otherwise.

In addition to the advantages of strength, simplicity, freedom, and certainty of action gained by my improvement, cars can be "buffed" by it without being coupled. It is adapted to be used
15 on sharp curves with but slight strain, with draw-bars of other forms, with cars of different heights, by employment of a bent link. The parts can be easily taken apart and transferred, and but little friction is encountered by
20 its operation.

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

1. A car-coupler provided with a detachable swiveled block composed of vertical piece *b*, the knuckle and the top *c*, with its irregular
25 form of rim, substantially as described.

2. The combination of the swinging block *A*, the coupling-pin, to which said block is attached by flexible means, and the draw-head.

3. The draw-head provided with the recess
30 having lower and upper concave surfaces, flaring mouth, inner flange, and side aperture, in combination with the swinging block *A* and coupling-pin, substantially as described.

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

CLARENCE W. DICKEY.

Witnesses:

H. F. GUERIN,

J. W. FIRESTONE.