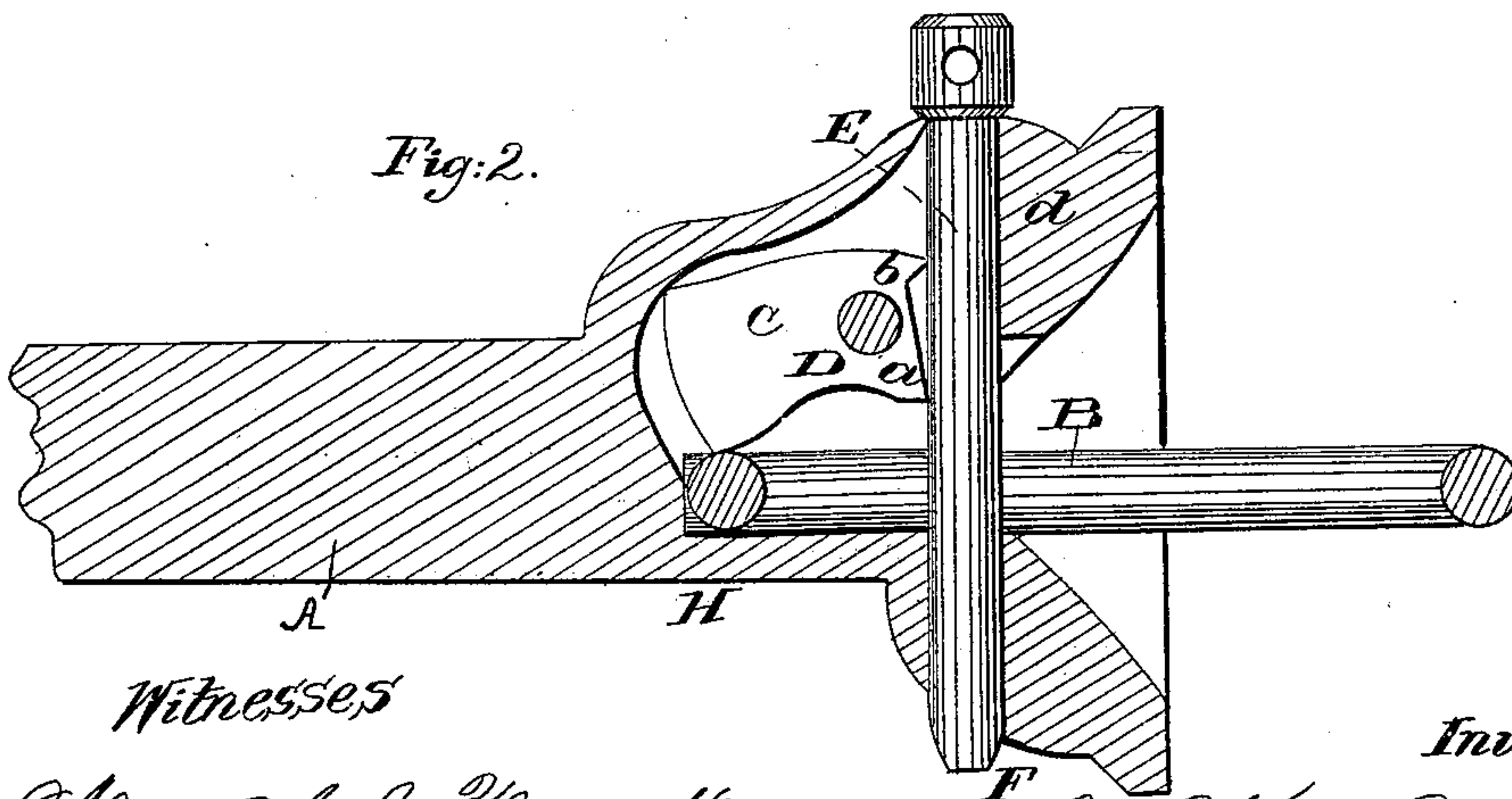
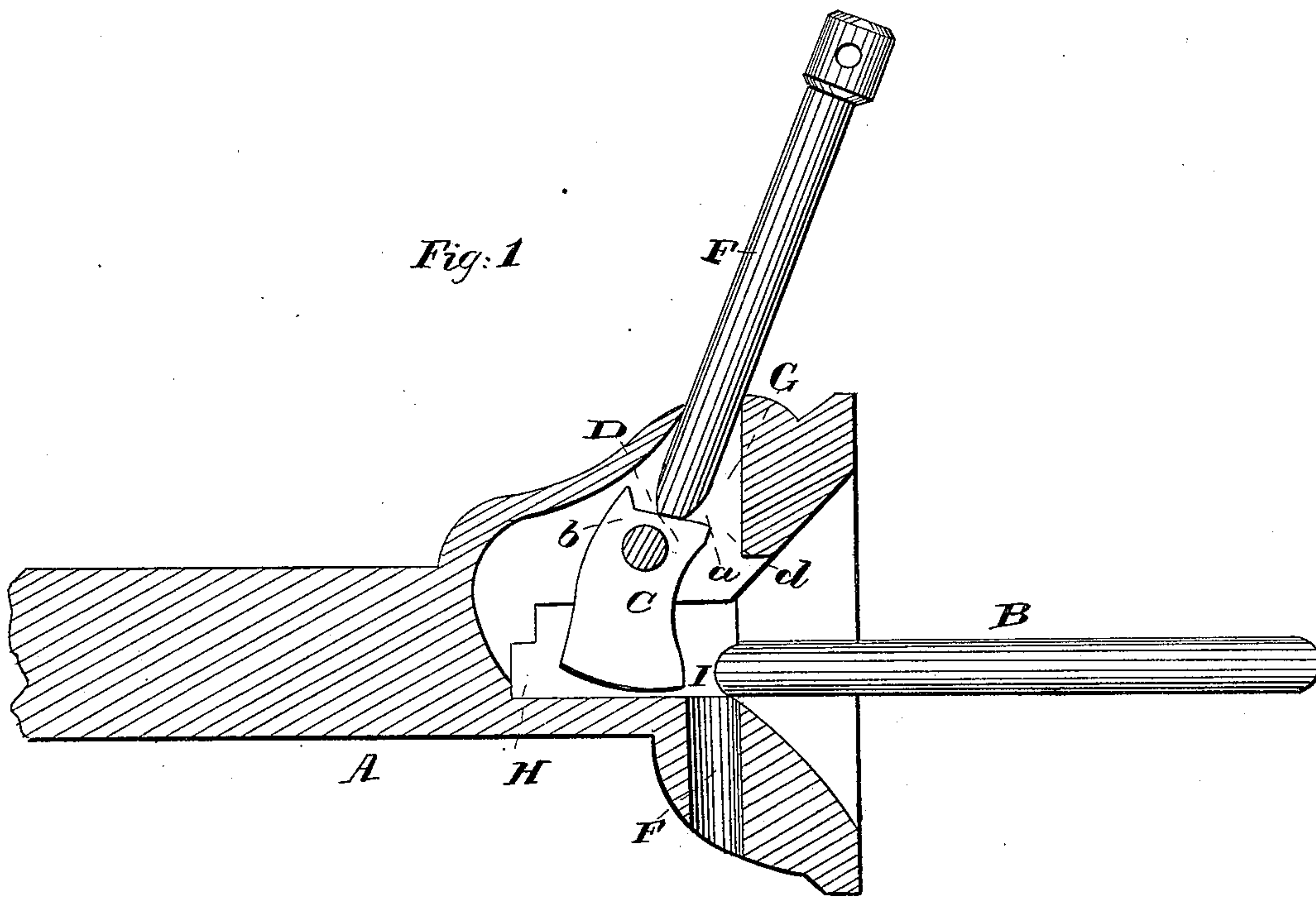


## Car Coupling.

Patented Apr. 3, 1866.



*Inventor*

J. W. Broughon  
By Anna H. Conllys

# UNITED STATES PATENT OFFICE.

JOHN W. BOUGHTON, APPLETON, WISCONSIN.

## IMPROVED CAR-COUPLING.

Specification forming part of Letters Patent No. 53,560, dated April 3, 1866.

*To all whom it may concern:*

Be it known that I, JOHN W. BOUGHTON, of Appleton, in the county of Outagamie and State of Wisconsin, have made new and useful Improvements in Car-Couplings; and I do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation of the same, sufficient to enable one skilled in the art to which it appertains to construct and use the same, reference being had to the accompanying drawings, which are made part of this specification, and in which—

Figure 1 is a longitudinal vertical section, showing the draw-head with the pin and tumbler in a position for coupling. Fig. 2 is a longitudinal vertical section, showing the draw-head coupled.

The object of the arrangement is to hold the coupling-pin of the draw-head in such a position that the entering link will cause it to drop inside of the link and couple the cars; and, secondly, to maintain the link in such a position when approaching a car as to be presented fairly to the opening in the draw-head.

The first desired result is to be obtained by means of setting the coupling-pins in an oblique hole in the upper side of the draw-head, where it is partially supported by a tumbler, which is vibrated by the entering link, thereby throwing off the pin, which falls and couples with the link.

The second point is accomplished by means of pushing back the link into a recess of the draw-head, which holds it in a horizontal position, so as to be presented fairly to the draw-head of the car to which it is to be coupled.

In the drawings, A is the draw-head, and B the link. C is a tumbler, pivoted on a horizontal pin, D.

E is the coupling-pin, which, when prepared for coupling, rests in a position slanting outwardly, or from the car, as seen in Fig. 1, its

ends resting upon the shoulder *a* of the tumbler C, by which it is held in the inclined position until the link B vibrates the tumbler, causing it to assume the position shown in Fig. 2, whereby the pin E is brought to the vertical position, slipped from the shoulder *a* of the tumbler C, and dropped inside of the link B, and penetrating the hole F in the lower part of the draw-head A.

The hole G in the upper part of the draw-head is made oblique on one side, so that the pin E may be inclined, in which position it has not sufficient weight to vibrate the tumbler C, but impinges upon it until in the vibration of the tumbler it is first uprighted against the straight side *d* of the hole, and then slipped off the shoulder *a*, as has been said, the horn *b*, if necessary, assisting to push it off or defining the obliquity of its position when resting as in Fig. 1, wherein it has but little tendency to vibrate the tumbler, as its position approaches a direction radial to the axis of revolution of the pin E.

When the draw-head holds the link B to be coupled to another car of even height it is pushed back into the farthest recess H, and when to couple with a car of inferior height the inner end of the link is made to rest against such other portion I of the roof of the recess as may make the outer end of the link agree in height with the opening in the draw-head of the car to which it is to be coupled.

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

The combination of the shouldered tumbler, obliquely-set coupling-pin, and corresponding opening, operating substantially as described and represented.

JOHN W. BOUGHTON.

Witnesses:

C. F. BOUTON,  
P. N. BOUTON.