

W. R. HOOPES & M. L. SMITH.

Car-Coupling.

No. 160,326.

Patented March 2, 1875.

Fig. 1.

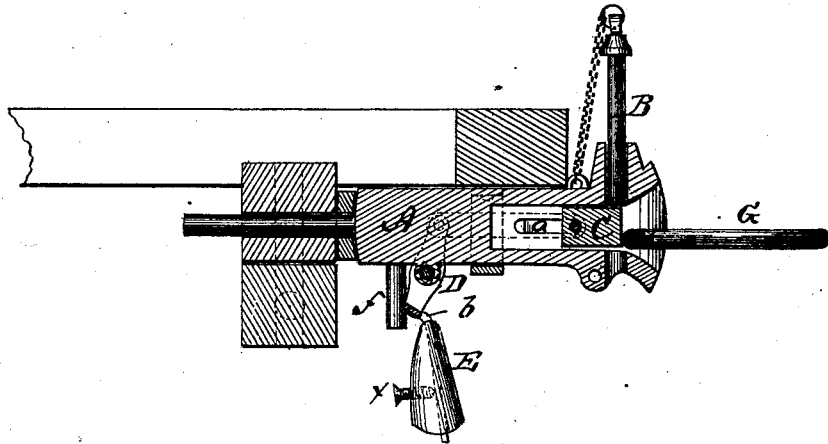
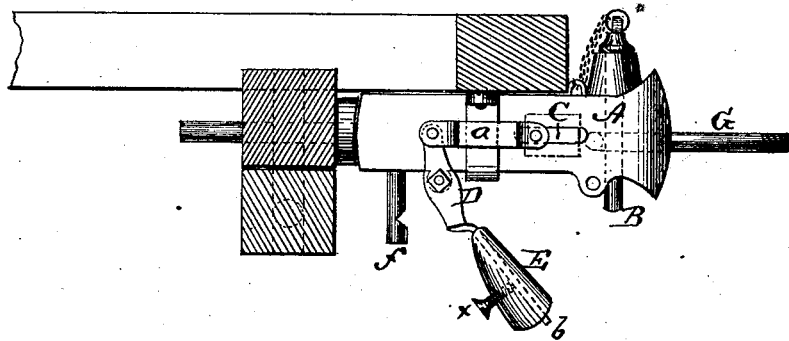


Fig. 2.



Witnesses:

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per: *S. H. Alexander*

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UNITED STATES PATENT OFFICE

WILLIAM R. HOOPES AND MARSHALL L. SMITH, OF WEST CHESTER, PENNSYLVANIA, ASSIGNORS OF ONE-THIRD THEIR RIGHT TO BALDWIN KEECH, OF SAME PLACE.

IMPROVEMENT IN CAR-COUPINGS.

Specification forming part of Letters Patent No. **160,326**, dated March 2, 1875; application filed February 15, 1875.

To all whom it may concern:

Be it known that we, WILLIAM R. HOOPES and MARSHALL L. SMITH, of West Chester, in the county of Chester and State of Pennsylvania, have invented certain new and useful Improvements in Car-Coupling; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The nature of our invention consists in the construction and arrangement of a car-coupling, as will be hereinafter more fully set forth.

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

Figure 1 is a longitudinal vertical section of our car-coupling, showing the coupling-pin in position to be coupled. Fig. 2 is a side elevation of the same after the coupling is performed.

A represents the draw-head of a railroad-car, constructed substantially in the same manner as now usually done, with flaring sides to its mouth and interior chamber, and with the ordinary coupling-pin B. The coupling-pin B is provided with a head or flange at its upper end, to prevent it from falling clear through, and is connected with the draw-head by a chain. The draw-head A is, on its upper side, provided with an enlargement or projection, through which the coupling-pin passes, and which forms a guide for the pin when raised up ready to be coupled. In the chamber of the draw-head A is a slide, C, attached to an arm, *a*, on each side of the draw-head through longitudinal slots in the sides thereof. D represents a metal stirrup, the arms of which extend up along the sides of the draw-head, and are pivoted to a projection on the under side of the draw-head. The arms *a a* are pivoted to the upper ends of the stirrup-arms, and from the center of the bottom of the stirrup projects a rod, *b*, in

a forward and downward direction. On this rod is secured a weight, E, by means of a set-screw, *x*. The tendency of this weight is to throw the slide C forward, so that when the coupling-pin is raised up the slide will move under its lower end, and the pin be allowed to rest on the same, the projection *d* forming a guide to hold the pin in a vertical position. G represents the ordinary coupling-link, which, when inserted in the draw-head, strikes the slide C, and moves the same backward until it passes from under the coupling-pin, when said pin falls down of its own weight and couples the cars. The forward movement of the slide C is limited by a post, *f*, projecting from the under side of the draw-head, and against which the bottom of the stirrup D strikes in its backward movement. The weight E is adjustable upon the rod *b*, so as to be regulated to the proper working of the slide C.

The arms *a a*, instead of working on the outside of the draw-head, may be arranged within the chamber thereof, in which case the pivots connecting the rear ends of said arms with the arms of the stirrup D will pass through suitable slots in the draw-head.

We are aware that a weight has been used in connection with a draw-head for a similar purpose to that we apply it, and therefore lay no broad claim to this feature; but

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

1. The combination, with the slotted draw-head A, of the slide C, arms *a a*, stirrup D, with rod *b*, and the weight E, substantially as and for the purposes set forth.

2. The stop *f*, in combination with the stirrup D, arms *a*, and slide C, substantially as and for the purposes set forth.

In testimony that we claim the foregoing as our own we affix our signatures in presence of two witnesses.

WILLIAM R. HOOPES.
MARSHALL L. SMITH.

Witnesses:

WM. WHITEHEAD,
THOS. CARPENTER, Jr.