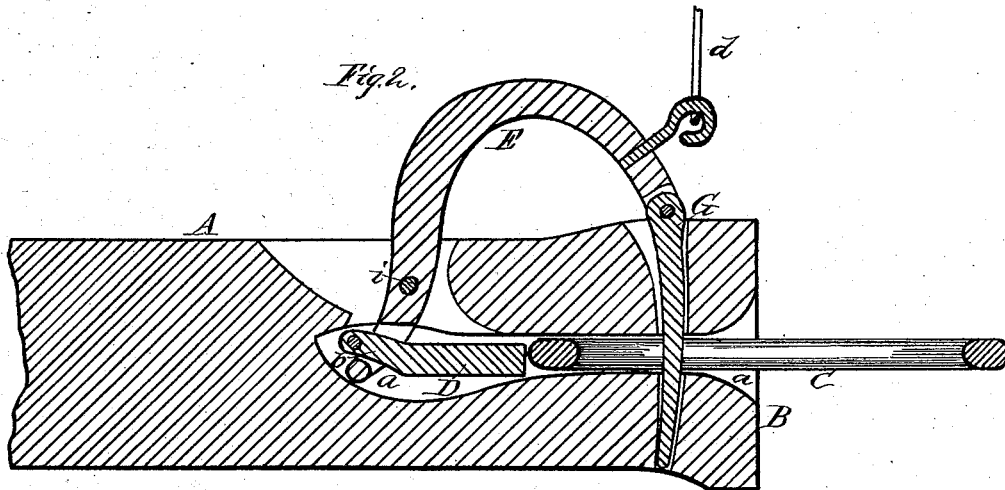
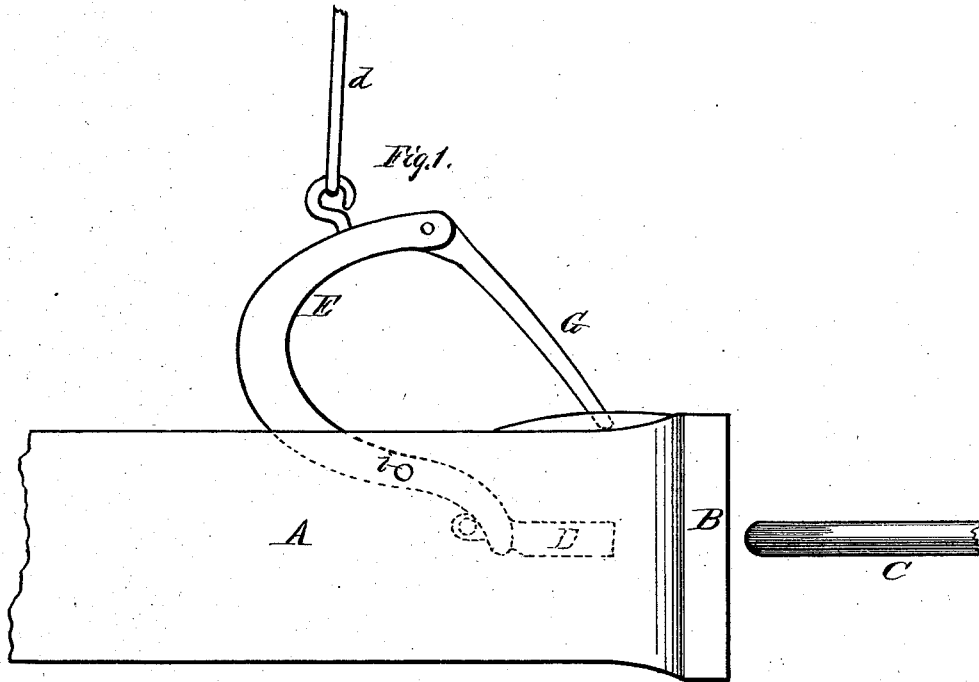


J. H. C. & N. B. SMITH.
Car-Coupling.

No. 162,774.

Patented May 4, 1875.



Witnesses;
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UNITED STATES PATENT OFFICE.

JOHN H. C. SMITH AND NATHAN B. SMITH, OF ST. ELMO, ILLINOIS.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. 162,774, dated May 4, 1875; application filed March 22, 1875.

To all whom it may concern :

Be it known that we, JOHN H. C. SMITH and NATHAN B. SMITH, of Saint Elmo, county of Fayette and State of Illinois, have invented certain new and useful Improvements in Railroad-Car Couplings, of which the following is a 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, which forms a part of this specification, and in which—

Figure 1 is a side elevation, and Fig. 2 a longitudinal vertical section, of our car-coupling.

A represents a draw-bar of any ordinary construction, provided with a flaring mouth, B, to facilitate the entrance of the ordinary coupling-link C. The interior chamber *a* of the draw-bar is wide enough to receive the coupling-link, and of suitable height to allow a slide, D, placed therein to move freely back and forth. At the rear end of the slide D is a projecting arm, *b*, which passes through a slot in the lower or rear end of a semicircular lever E, and has a pin or bolt through its extreme end to prevent its withdrawal from the end of the lever. The lever E is pivoted near its rear end in a slot in the top of the draw-head, by a pin or bolt, *i*, passing horizontally through the same: From the pivot-point the lever is curved forward in semicircular form, and its forward end is forked to receive the

upper end of the coupling-pin G, which is pivoted therein. This pin is slightly curved, and passes through a correspondingly-curved hole in the drawhead immediately, or a short distance back of the mouth B. Near the front end of the lever E is attached a rod, *d*, which is to run up to the top of the car, so as to uncouple from the top without going between the cars, or it may be uncoupled from either side by means of a lever suitably arranged for that purpose. When the coupling-pin is raised the lower end of the lever E moves the slide D forward in the chamber *a*, and the weight of said slide prevents the pin from falling down. When two cars are brought together, the coupling-link enters the draw-head and pushes the slide D backward. This movement turns the lever E on its pivot, and throws the pin G down into the link, coupling the cars. This car-coupling is very simple, safe, and durable, and not liable to get out of order.

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

The combination, with a draw-head, A, having interior chamber *a*, of the slide D, curved lever E, and pin G, substantially as and for the purposes set forth.

In testimony that we claim the foregoing as our invention, we hereunto affix our signatures this 8th day of March, 1875.

JOHN H. C. SMITH.
NATHAN B. SMITH.

Witnesses:

J. A. ZELLER,
EMMA C. SHIPLEY.