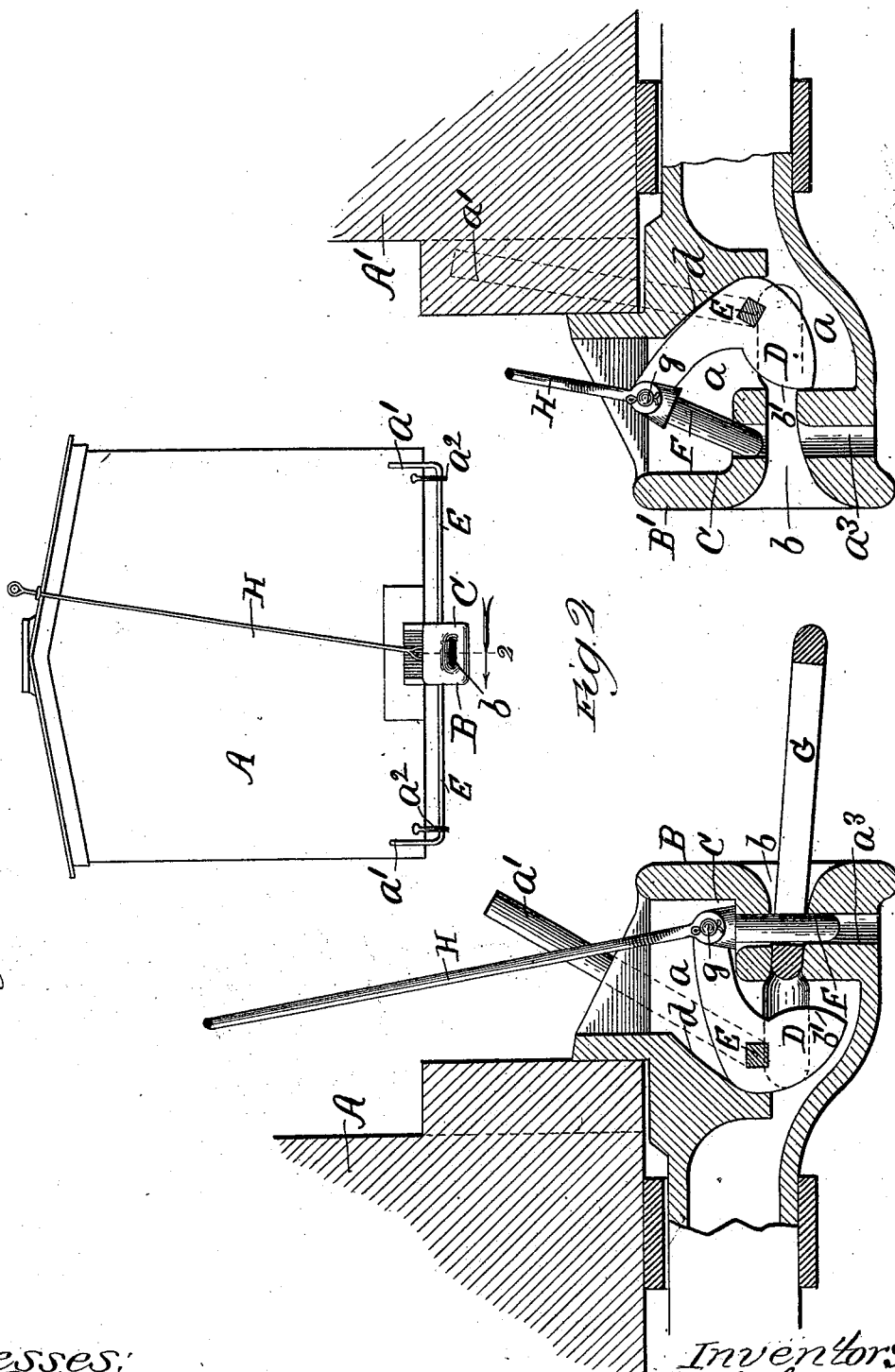


(No Model.)

J. H. C. & N. B. SMITH.
CAR COUPLING.

No. 510,097.

Patented Dec. 5, 1893.



Witnesses:
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By

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UNITED STATES PATENT OFFICE.

JOHN H. C. SMITH AND NATHAN B. SMITH, OF ALTAMONT, ILLINOIS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 510,097, dated December 5, 1893.

Application filed September 19, 1893. Serial No. 485,829. (No model.)

To all whom it may concern:

Be it known that we, JOHN H. C. SMITH and NATHAN B. SMITH, citizens of the United States, residing at Altamont, in the county of Effingham and State of Illinois, have invented certain new and useful Improvements in Car-Couplings, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to an improved car-coupling, and consists of certain novel features in the construction, arrangement and combination of the coupling-mechanism and draw-bar. The arrangements are such that the cars can be automatically coupled together and uncoupled by hand from the top or either side without the necessity of going between the cars, thus avoiding fatal accidents or injuries.

In the drawings—Figure 1 is an end elevation of the body of a car embodying our improved features; and Fig. 2, a broken-away longitudinal section showing two cars coming into position to be coupled together.

A A' represent the car bodies, and B B' the draw-bars provided with the enlarged head-ends C. The head-ends of the draw-bars are provided with a chamber *a* in which is located a shifting cam-weight, D, rigidly mounted on the rocking-rod E passing horizontally through the head of the draw-bar. The rod E extends outwardly from each side, stopping (Fig. 1) just short of the respective sides of the car; the respective ends terminating in the handles *a'* *a'* which can be conveniently reached from either side by a person standing outside of the cars. The ends of the rod E are supported in the bearing-brackets *a*². To the upper curved end of the cam-weight D is attached the coupling-pin F seating in aperture *a*³. The lower end and heaviest part of the cam-weight is below the

center of axis so that it will remain in the uncoupled position shown on the right in Fig. 2. The device is thrown into this position by hand; the upturned handle-ends of the rocking-rod resting close to the end of the car, as indicated in broken lines. Now, as the disengaged end of the coupling-link G passes into the throat *b* in the draw-head it strikes against the front curved edge *b'* of the shifting-cam-weight, forcing it back to the position shown on the left in Fig. 2, and throwing the coupling-pin into the engaged position shown.

The draw-head is provided with the internal shoulder *d*, which forms a guide and back-support for the cam-weight. The coupling connection may also be disengaged from the top of the cars, by means of the connecting-rod H, the lower end of which is pivoted to the upper end of the cam-weight, as shown at *g*, and the upper handle-end projects just above the top of the car. By this arrangement the cars are coupled automatically and uncoupled by hand; the brakeman not being liable to be injured as he is not required to step in between the cars.

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

In a car-coupling, the combination with a draw-bar, having a chambered head, of a shifting cam-weight, located in said chamber, a rocking-rod, inserted through said head and weight, the respective ends of said rod terminating in handles and stopping just short of the sides of the car, and a coupling-pin, attached to the upper end of the cam-weight, substantially as set forth.

JOHN H. C. SMITH.
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Witnesses:

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