

(No Model.)

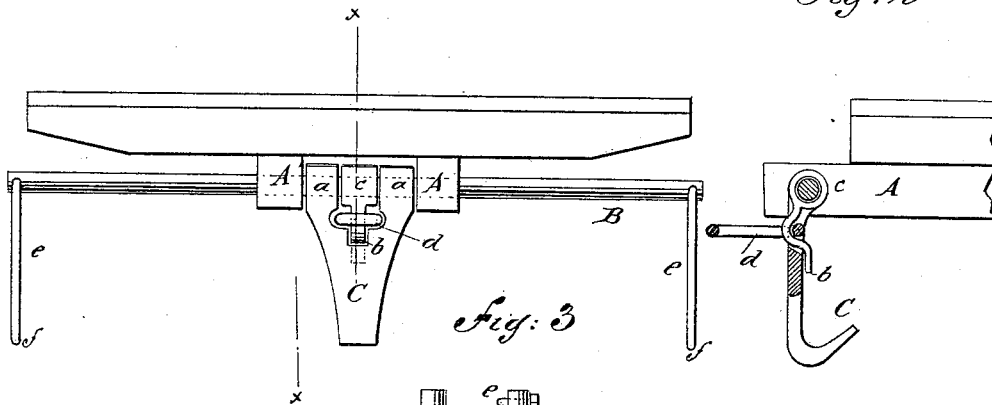
G. F. CARRUTHERS.

CAR COUPLING.

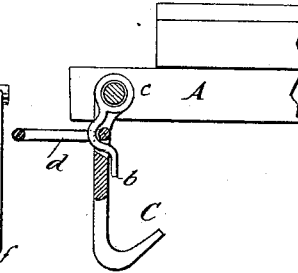
No. 344,164.

Patented June 22, 1886.

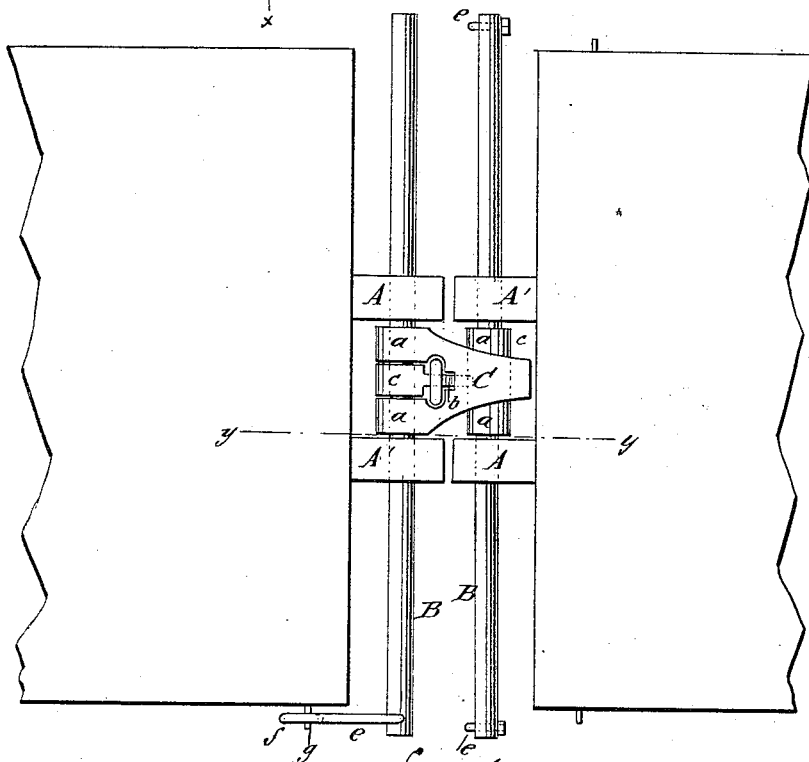
*Fig: 1.*



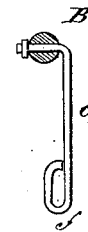
*Fig: 2.*



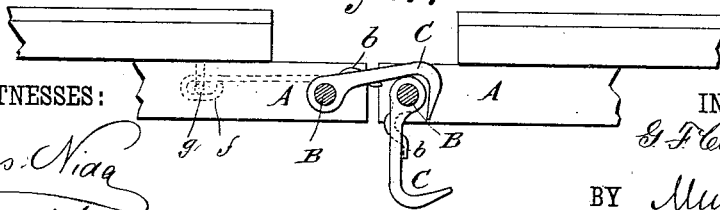
*Fig: 3.*



*Fig: 5.*



*Fig: 4.*



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# UNITED STATES PATENT OFFICE.

GEORGE F. CARRUTHERS, OF WINNIPEG, MANITOBA, CANADA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 344,164, dated June 22, 1886.

Application filed March 9, 1886. Serial No. 194,530. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE F. CARRUTHERS, of Winnipeg, in the Province of Manitoba and Dominion of Canada, have invented a new and useful Improvement in Car-Couplers, of which the following is a specification, reference being had to the annexed drawings, forming a part thereof, in which—

Figure 1 is a front elevation of my improved car coupler. Fig. 2 is a vertical transverse section taken on line *x x* in Fig. 1. Fig. 3 is a plan view showing the application of my improved coupler. Fig. 4 is a vertical transverse section of my improved car-coupler, taken on line *y y* in Fig. 3. Fig. 5 is a detail view of the hand-lever by which the coupler is operated.

Similar letters of reference indicate corresponding parts in the different figures of the drawings.

The object of my invention is to provide a simple and efficient coupler for coupling freight and passenger cars, which may be operated from the side of the car, thus obviating the danger attending the coupling of cars in the usual way.

My invention consists in the construction and arrangement of parts, as will be hereinafter fully described and claimed.

In buffers *A A'*, projecting from the end of the car frame or platform, is journaled a shaft, *B*, which projects in opposite directions from the buffers toward or beyond the sides of the car. Upon the shaft *B*, between the buffers *A A'*, is secured a hook, *C*, having a broad base or boss, *a*, which nearly fills the space between the buffers, and is slotted to receive the arm *b*, which is provided with an eye, *c*, received on the shaft *B* in the slot of the hook *C*. The arm *b* is bent outward toward the face of the hook, and carries an ordinary coupling-link, *d*, which is used when a car having my improved coupler applied comes into contact with a car arranged for coupling with a link. The lower end of the arm *b* extends downward a short distance over the inner face of the hook *C* to give it additional support. The ends of the shaft *B* are apertured transversely to receive the rod *e*, which is bent at right angles and secured in the aperture of the shaft, and is provided with a loop, *f*, at its

free end, forming the handle by which it is operated.

A hook, *g*, is inserted in the side of the car for receiving the loop *f* when it is desired to hold the hook *C* in a horizontal position. The rod *e* is capable of swinging laterally, so that it can be readily placed on or removed from the hook *g*.

When two cars having my improved coupler applied are brought into position for coupling, the hook *C* of one car is dropped over the body of the hook of the adjacent car, as shown in Fig. 4, the unused hook hanging vertically by its own gravity, and the handle *f* hanging down in the same direction. The hook upon either car may be brought into use, but it is impossible to use the adjacent hooks of both cars simultaneously.

The advantages secured by my improvement are as follows: The coupler may be made of rough material without any special finish, and with a small amount of machine-work. It employs no springs, and has no delicate adjustments. It is adapted for universal application, and can be operated without danger. It requires but one hand of the train-man to operate it, which admits of his using the other hand for the purpose of signaling the engineer. It adjusts itself automatically to the vertical and lateral movements of the car, and when not in use hangs down vertically out of the way.

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

1. The combination, with the shaft *B*, of a slotted hook, *C*, having a wide body or boss, *a*, the arm *b*, received in the slot of the hook and carried by the shaft *B*, and the link *d*, received on the arm *b*, substantially as herein described.

2. In a car-coupler, the combination of the shaft *B*, the slotted hook *C*, having a wide body or boss, *a*, the arm *b*, received in the slot of the hook and carried by the shaft *B*, and the laterally-swinging handle *e f*, substantially as herein shown and described.

GEORGE F. CARRUTHERS.

Witnesses:

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