(No Model.)

G. D. PEARSON.

CAR COUPLING.

No. 332,430. Patented Dec. 15, 1885.

Fig. 1.

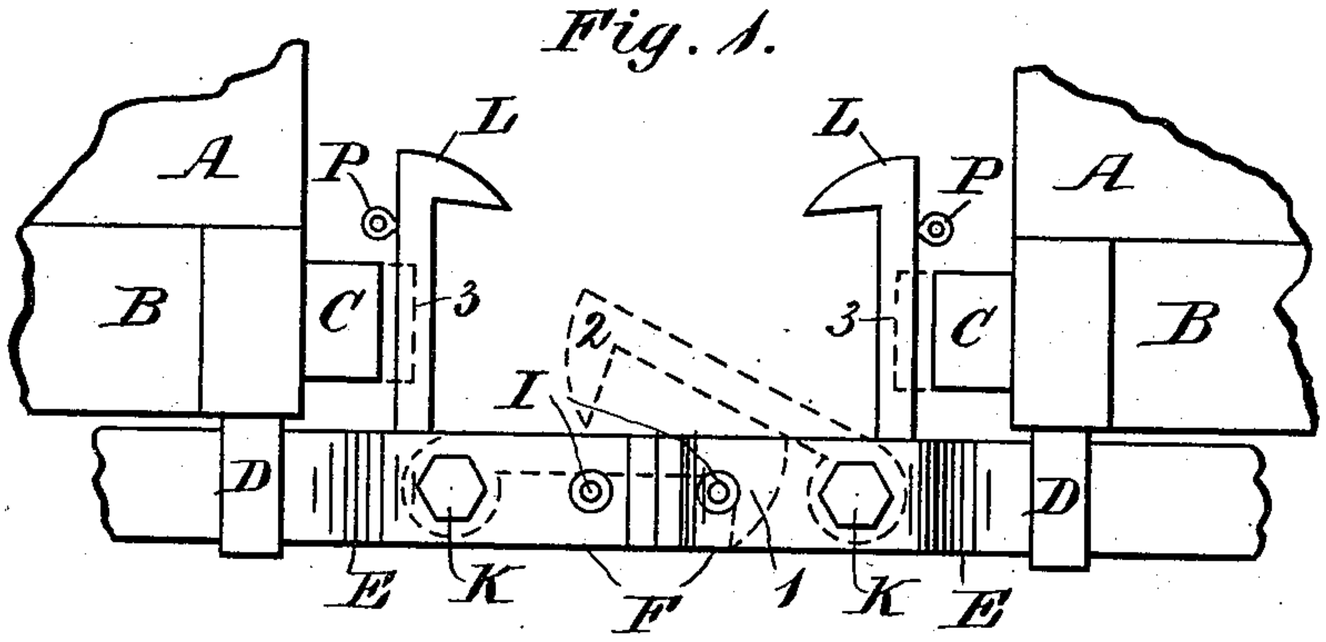


Fig. 2.

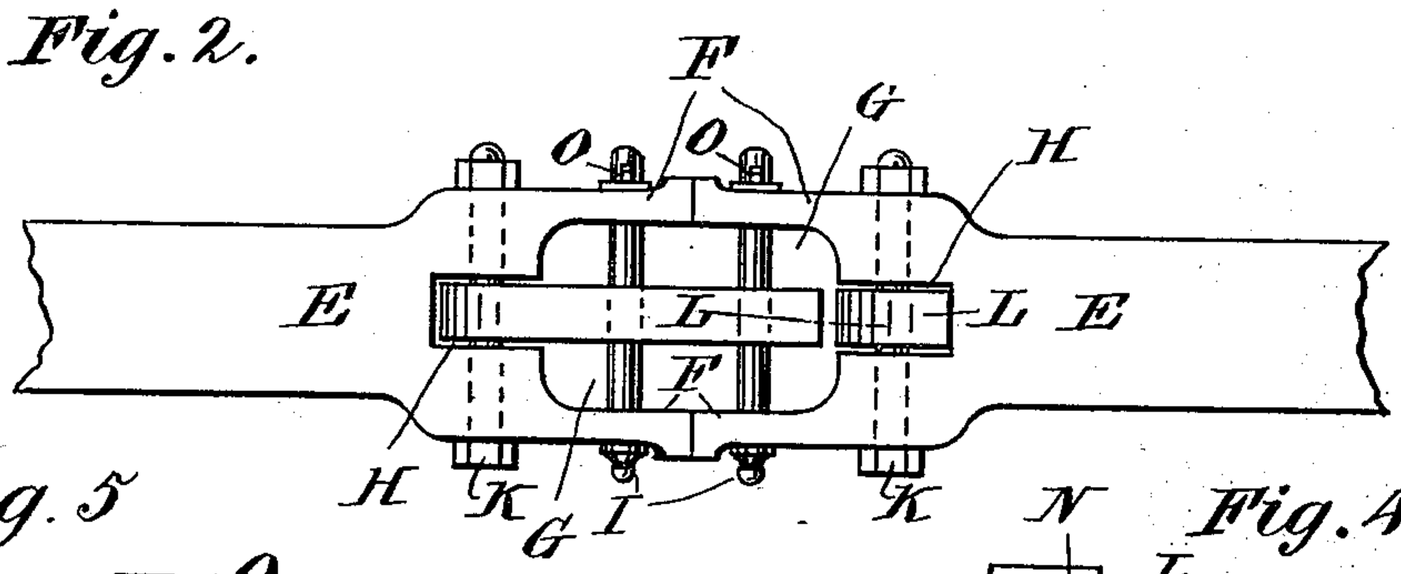


Fig. 5

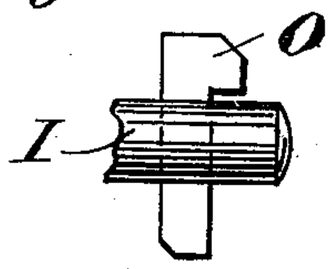


Fig. 4.

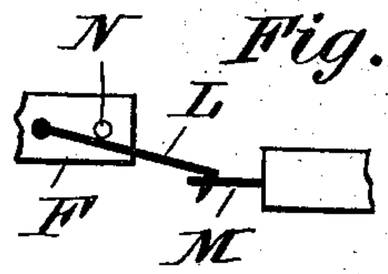
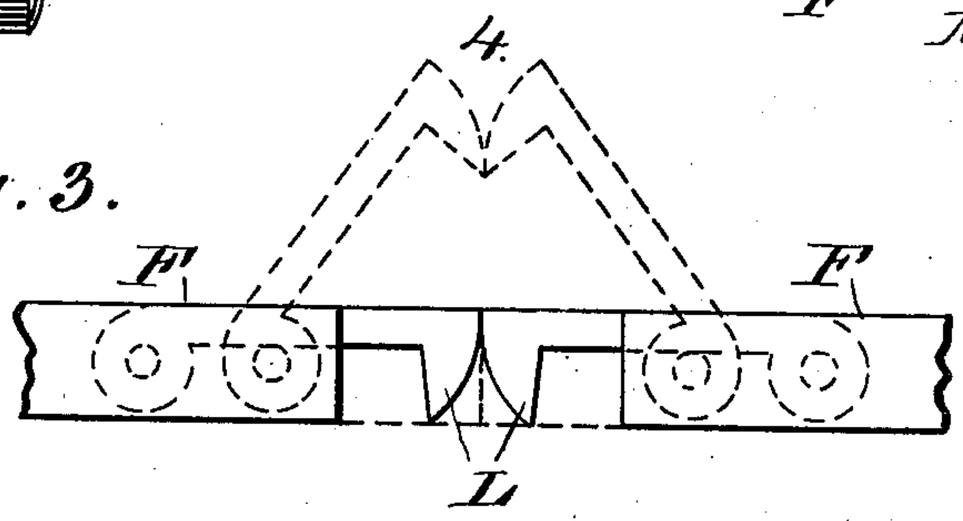


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE DECARRIE PEARSON, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR OF ONE-HALF TO JOHN WALLACE AND PETER WALLACE, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 332,430, dated December 15, 1885.

Application filed April 28, 1885. Serial No. 163,710. (No model.)

To all whom it may concern:

Be it known that I, GEORGE DECARRIE PEARSON, of the city of Montreal, in the district of Montreal, Province of Quebec, Canada, have invented new and useful Improvements in Car-Couplers; and I do hereby declare that the following is a full, clear, and exact description of the same.

This invention has reference to improvements in the construction of railway-car couplings, to provide an automatic coupling easy of construction and capable of being used with other cars provided with the ordinary links at present in general use on freight-cars.

The particular features forming this invention will be hereinafter fully set forth and described.

In the drawings hereunto annexed similar letters of reference indicate like parts, and Figure 1 is a side elevation showing my invention. Fig. 2 is a plan showing my invention. Fig. 3 is a side elevation showing the action of the hooks under certain circumstances. Fig. 4 is a diagram showing the manner of arranging my invention with an ordinary link-coupling. Fig. 5 is a detail.

Letter A represents a portion of the body of a railway-car; B, the end of frame, and C the end beam of the car, commonly called the "dead-head." D is the strap or gland carrying the bunter E. All these are arranged as in ordinary use heretofore. The back or inner part or end of the bunter is also constructed in an ordinary manner, and therefore is not shown, as my invention relates exclusively to the outer ends, at which the means for coupling the cars together are placed.

E are the bunters. Their necks, which slide in the straps D, are also of an ordinary construction, but provided on their outer ends with extensions F, of the configuration shown by Figs. 1 and 2, having a wide open space, G, between them and a further inward-extending recess, H. Through the extensions F and spaces G and H two pins, I and K, are situated. On the pins K are pivoted pawls or hooks L. The pin I of one car serves for the hook L of any other car to hook onto. The pins K are secured in place by a nut or jam-nuts, as desired; but as it may be necessary to often remove the pins I they are secured by ordinary cutters, O, (see Figs. 2 and 5,) a washer being used or not, as desired.

P are eyes, which may be formed on the back of the hooks L, for attaching a line, chain, or rod, &c., to operate the hooks by hand when it is desired.

The operation of the invention is as follows: When it is desired to couple two cars together, the hooks L are set up in the position shown by solid lines in Fig. 1, in which they are retained by their backs resting against the back of the recess H. The one car is then moved to have its projections F come in contact with the projections F of the other car. As soon as the projections strike together the momentum of the moving hook L of the moving car throws it down from its vertical position with greater force than the force that the hook L of the stationary car will be thrown down with, and should they meet in the position shown at 4 by dotted lines in Fig. 3, the hook L on the moving car will overcome the force of that on the stationary car and come to the position marked 1, (indicated by dotted lines in Fig. 1,) while the other hook, I, will come to the position marked 2 in Fig. 1, (also indicated by dotted lines,) in which position it rests upon the lower hook and helps to secure it in place. When a car is moved to couple with another car, the momentum of the moving car always pushes in the bunters of both cars more or less. This causes the dead-heads C to come to the positions or about the positions indicated by the dotted lines 3, and thus positively push over the hooks L from their balance and cause them to fall over, as above stated.

If the hooks are not raised, but both left down, as indicated by solid lines in Fig. 3, they will come together first, as shown by solid lines, after which they will rise to the position shown by dotted lines at 4, Fig. 3, and the momentum of the moving hook L will always overcome the force of the stationary hook L, and cause them to come to the position indicated at 1 and 2 in Fig. 1.

If the pin of one car is very considerably above the other, the hook L of the lower car may be caused to hook upon the pin I of the other by holding it by the eye P in a sufficiently-raised position, while the hook L of the higher car will be retained in an upright

position until the hook L of the lower car is properly hooked; or, by removing the pin I from the bunter of the higher car, the hook L of the higher car may be hooked upon the pin I of the lower car.

If the invention is attached to one car only and the other car is provided with the ordinary link-coupling, so largely at present in use, the one hook, L, of the car having my invention can be hooked into the ordinary link, and if this link is lower than the level of the hook the pin I may be removed to allow the hook to descend low enough for this purpose, as indicated by the diagram, Fig. 4, where M represents the link, and N the hole in F, from which the pin I has been removed.

What I claim, and wish to secure by Letters Patent, is as follows:

The combination of the bunters E E, having each a recess, H, pins K and O, and hook L, the said hooks being furthermore arranged to meet, uprise, and further actuate each other, substantially as shown and described.

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Witnesses:
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