No. 649,418. Patented May 8, 1900.

R. & R. B. WALKER.

COUPLING FOR RAILWAY CARRIAGES OR WAGONS.

(Application filed Jan. 16, 1900.)

(No Model.) 2 Sheets—Sheet 1.

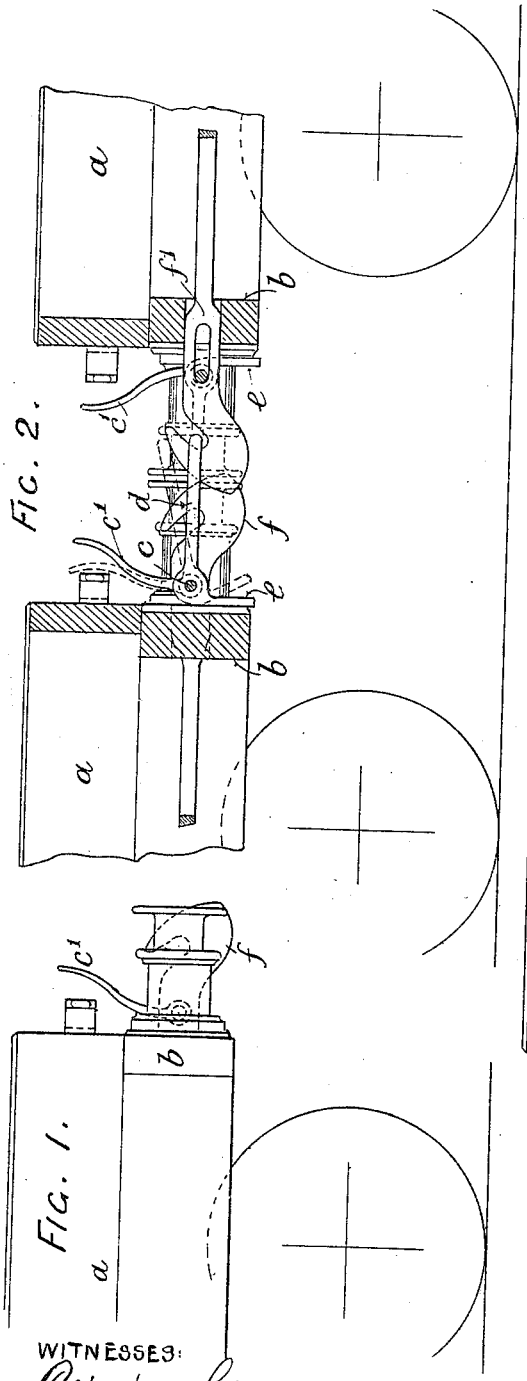
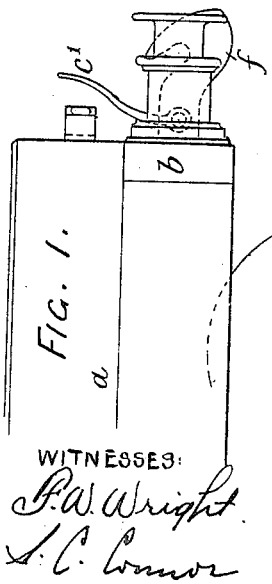


FIG. 2.



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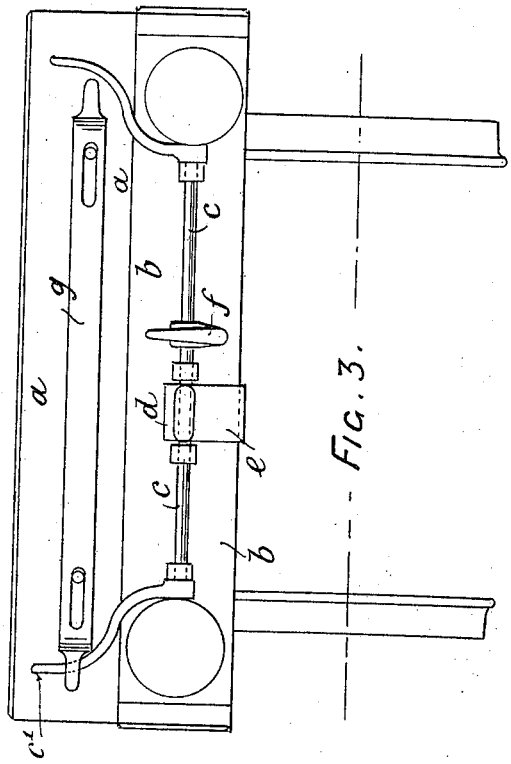

FIG. 3.

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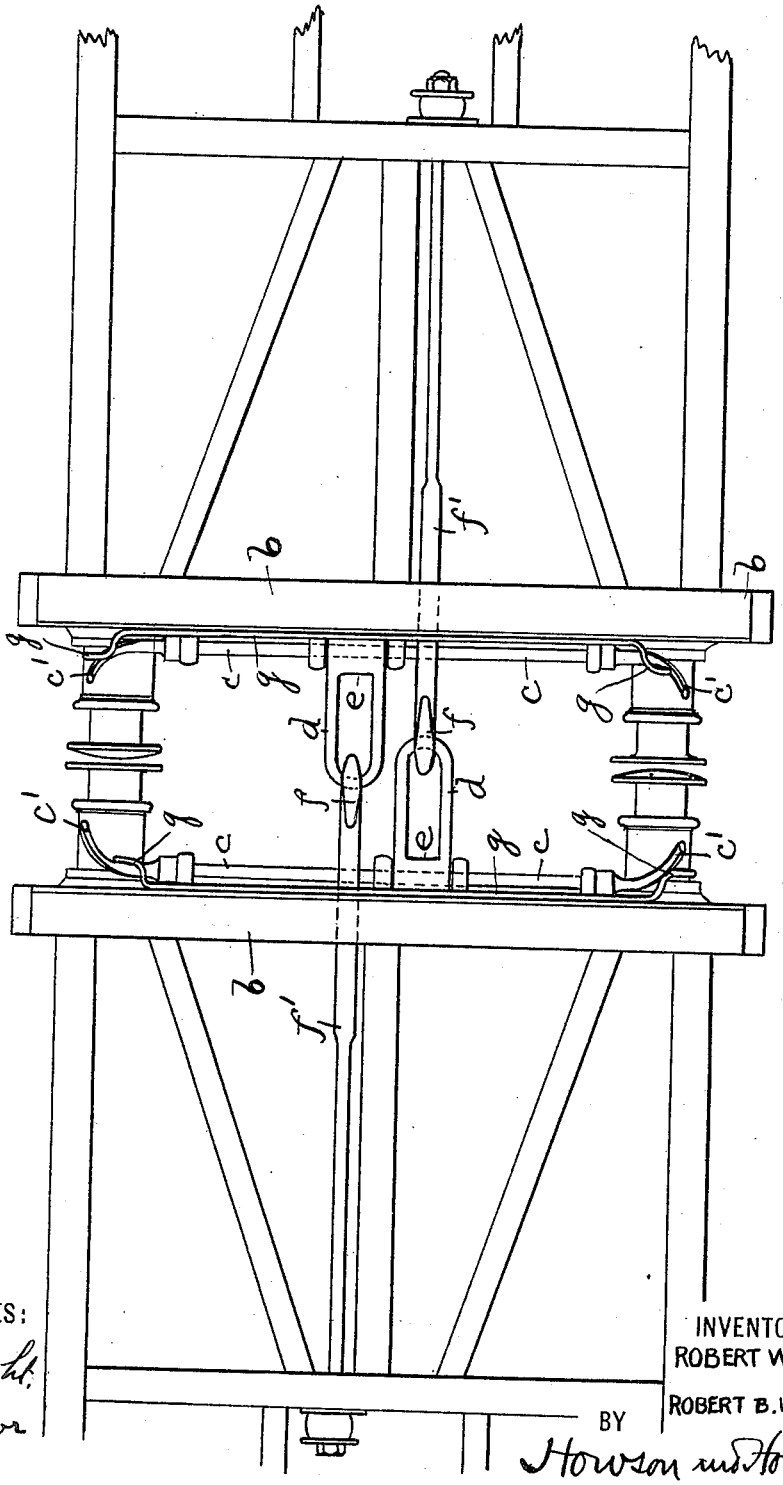
FIG. 4.



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COUPLING FOR RAILWAY CARRIAGES OR WAGONS.

SPECIFICATION forming part of Letters Patent No. 649,418, dated May 8, 1900.

Application filed January 16, 1900. Serial No. 1,649. (No model.)

To all whom it may concern:

Be it known that we, ROBERT WALKER and ROBERT BURLEY WALKER, subjects of the Queen of Great Britain, residing at Hulme, Manchester, in the county of Lancaster, England, have invented a new and useful Improved Coupling for Railway Carriages or Wagons or Like Vehicles, of which the following is a specification.

This invention relates to an improvement in couplings for railway carriages, wagons, and other like vehicles; and it consists in constructing said couplings so that vehicles may be automatically coupled when run together, or, if not required to be coupled, the couplings may be placed in a position whereby they may be rendered inoperative.

The object of this invention is to enable railway and like vehicles to be coupled or uncoupled without the necessity of those who are engaged in making up a train or shunting or at other times to pass in between the ends of the vehicles. We attain this object by the means hereinafter described, reference being made to the accompanying two sheets of drawings, in which—

Figure 1 is a side elevation of part of a railway-wagon with our invention fitted thereto. Fig. 2 is a side elevation of parts of two adjacent wagons with our invention applied, showing the wagons coupled. Fig. 3 is an end view, and Fig. 4 a plan, of the same.

In the views similar letters refer to similar parts.

For the purposes of this invention we fit at each end of a vehicle, as *a*, between eyebolts that are secured to the head-stock *b*, a horizontal rocking shaft *c*, either or both ends of which extend to the side or sides of the wagon or vehicle. At a little distance on one side of the center of the head-stock we form on or attach securely to the aforesaid rocking shaft a flat shackle or link, as *d*, with an angular tailpiece *e*, that rests against the head-stock when said shackle is in a horizontal position, as in Fig. 1, but permits the free end of the shackle to be raised as required. At a little distance on the opposite side of the center of the head-stock and by the side of the aforesaid shackle we place a draw-bar with hook, as *f*, the end or nose of the hook being formed with an inclined flattened curve. The shank *f'* of said draw-bar passes through the head-stock, and the end of the bar, which is provided with either an india-rubber or other suitable spring, is secured at the back of the head-stock or to the cross-bar, as shown. We attach to the outer end of the rocking shaft *c*, hereinbefore described, a lever *c'*, that may be moved either by hand or by any suitable mechanical device operated from either side of the wagon, and said lever may be locked in the uncoupled position by a slotted bar, as *g*, secured to the end of the vehicle, or by a pin-and-lever guard or an equivalent. In applying our invention a like form of draw hook and link are fitted in reverse positions at each end of the vehicle—viz., equidistant from the center—so that in any case when a carriage or a wagon is turned around a shackle *d* on one vehicle will always come opposite to a hook *f* on the other. When two vehicles meet end to end, the free end of the flat link *d*, hereinbefore described, will strike the curved portion of the hook *f*, that is fitted to the opposite vehicle, the said link being caused to rise, as shown in dotted lines in Fig. 2, and drop over onto the hollow portion of the hook, as shown in full lines in same figure, thereby automatically coupling the vehicles. To uncouple the vehicles, one of the side levers *c'* is pulled back, causing the rocking shaft *c*, to which the flat link *d* is fixed, to move around and said link to be raised out of the draw-hook.

In order to retain the link *d* in a raised position during the time the vehicles are being shunted and not required to be coupled, one of the aforesaid side levers *c'* is held by the end of the slotted bar *g* or an equivalent in the position required.

We claim as our invention—

The improved mechanism for automatically coupling railway carriages, wagons, and other like vehicles, consisting of a draw-bar with hook as *f*, the end or nose of which is formed with an inclined flattened curve, and a draw-link with an angular tailpiece *e* to rest against the head-stock, such hook and link being fitted respectively on either side

of the center line of the head-stock at each end of the vehicle in opposite positions, thereby causing the draw-link of one vehicle to normally come opposite the inclined flattened curve of the draw-hook of the other vehicle, a rocking shaft at the end of the vehicle to which said draw-link is secured, a lever for actuating said rocking shaft from the side of the vehicle and a guard or catch for holding the draw-link in an inactive position just above the draw-hook of the other vehicle, all substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ROBERT WALKER.
ROBERT BURLEY WALKER.

Witnesses:
THOMAS PRESCOTT,
JNO. HUGHES.