

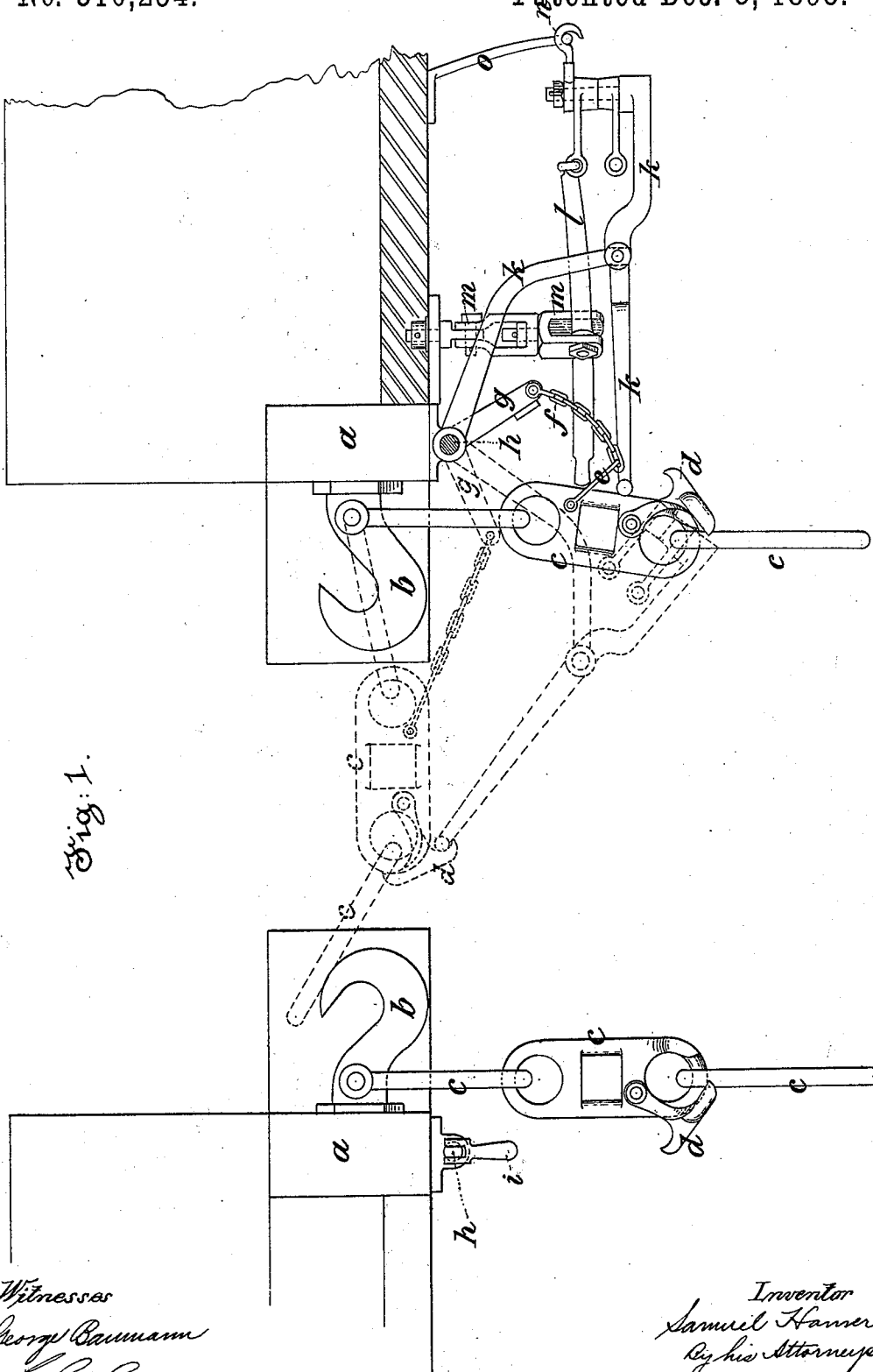
(No Model.)

4 Sheets—Sheet 1.

S. HAMER.
CAR COUPLING.

No. 510,254.

Patented Dec. 5, 1893.



Witnesses
George Baumann
S. B. Connor

Inventor
Samuel Hamer
By his Attorneys
Horsman and Horsman

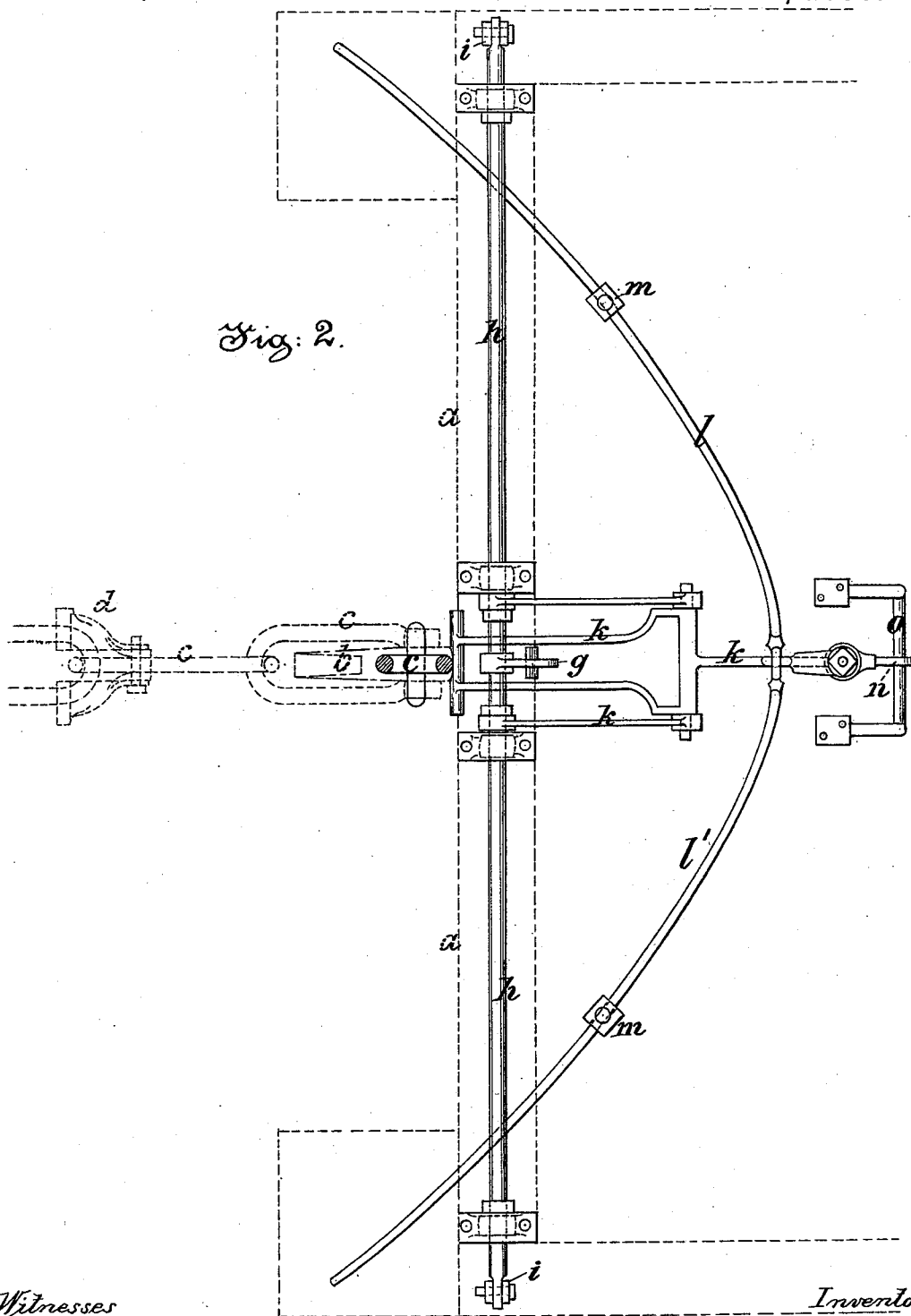
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4 Sheets—Sheet 2.

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(No Model.)

4 Sheets—Sheet 3.

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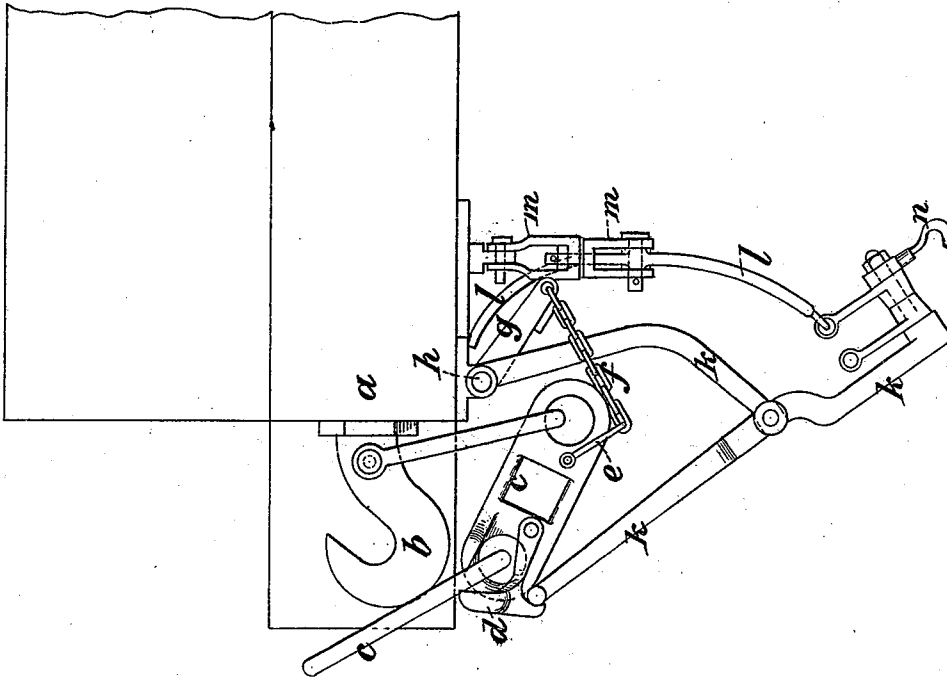
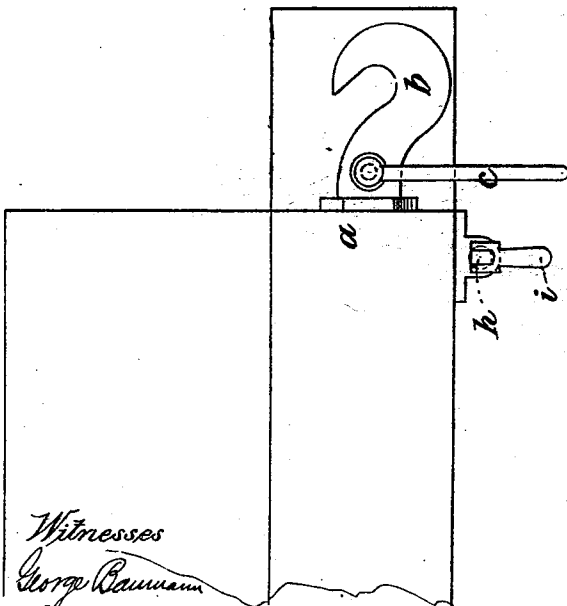


Fig. 3.



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4 Sheets—Sheet 4.

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Fig. 4.

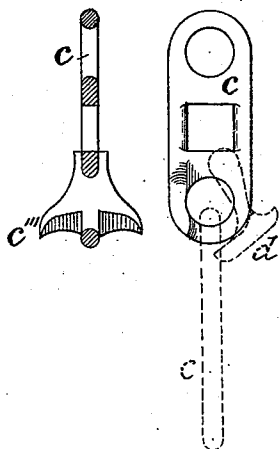


Fig. 5.

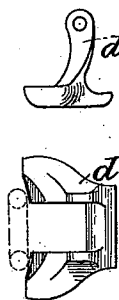
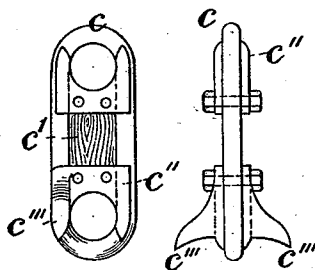


Fig. 6.



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UNITED STATES PATENT OFFICE.

SAMUEL HAMER, OF SWINTON, NEAR MANCHESTER, ENGLAND, ASSIGNOR
OF ONE-HALF TO JOHN WILKINSON, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 510,254, dated December 5, 1893.

Application filed August 11, 1893. Serial No. 482,928. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL HAMER, a subject of the Queen of Great Britain and Ireland, residing at Swinton, near Manchester, in the county of Lancaster, England, have invented an Improved Apparatus for Coupling and Uncoupling Railway-Wagons, of which the following is a specification.

This invention is intended to enable men engaged in coupling or uncoupling railway wagons or trucks to do so without going in between the same, which is a source of great danger and frequent accident to the men, my improved apparatus designed for this purpose being very simple and effective, and applicable to existing wagons without much expense.

The nature of my said invention and the manner in which the same is to be performed or carried into practical effect will be readily understood on reference to the four sheets of illustrative drawings hereunto annexed and the following explanation thereof.

On Sheet 1 of the drawings Figure 1 is an elevation (shown partly in section) of the ends of two railway trucks showing the application of my invention thereto. On Sheet 2 Fig. 2 is a plan view of the same and on Sheet 3 Fig. 3 is an elevation showing the apparatus in a different position. Figs. 4, 5 and 6 (Sheet 4) are detached views of portions of the apparatus hereinafter more particularly referred to.

a is the buffer plank at the end of the truck and *b* the ordinary draw-hook.

According to my invention I use the ordinary drawbar with its hook *b* and chain *c* of three links and when applying my invention to existing chains I sometimes fill up the central link with a block *c'* (detached view Fig. 6) of oak or other suitable material which I keep in place by a plate or plates *c''* at each end on either side of the link, the plates being broader than the block *c'* so as to clip round the width of the link. The blocks and plates are slotted or notched at each end of the link to allow of the free motion of the links to which it is connected, and the opposite plates are held together by bolts passing through them and through the block. One of

the plates is made with two projecting prongs *c'''*. In making new chains instead of using the block *c'* and plates *c''* I make the central link and prongs in one piece as shown at Figs. 1, 2 and 3 and detached at Fig. 4.

At or near that end which carries the free link of the chain, I hang on a suitable pin, a curved plate or lifter *d* (shown detached at Fig. 5) the prongs *c'''* serving to limit the lift of the said curved plate or lifter *d* and at the other end (which is connected to the link which passes through the drawhook *b*) I have on a similar pin a shackle *e* connected by a link or small chain *f* to a lever *g* fixed on a rocking shaft *h* mounted close beneath the buffer plank or beam *a* and provided at each end with a suitable handle *i* preferably hinged (as shown at Figs. 1 and 3) so that it can fall down so as not to project beyond the side of the wagon or truck when out of use. Immediately beneath the draw hook I mount, preferably on the said rocking shaft as shown (or sliding in grooves in a suitable frame underneath the wagon) a lever or "jib" *k* in the shape of an open jointed frame and this lever or "jib" *k*, can be moved to and fro and up and down by either one of a pair of hand levers *l l'* one of which extends out to each side of the wagon or truck and working on universal joints or centers *m* carried by the fixed frame underneath the wagon or truck. The "jib" is also provided with a hook *n* by means of which it can be suspended upon the fixed staple *o* when not in use as shown in full lines at Fig. 1.

The action of the apparatus is as follows:— To uncouple the wagon the "jib" or frame is brought forward by means of one of the levers *l* or *l'* against the back of the curved plate or lifter *d* hanging from the center link, and pushes the lifter forward so as to raise its front edge against the under side of the free link which it raises up against the stops or prongs *c'''* of the center link so as to be free of the draw hook *b* as shown by dotted lines at Figs. 1 and 2. The whole can then be drawn back into the position shown at Fig. 3 by pulling back the small chain *f* and shackle *e* which can be effected by causing the rocking shaft *h* to oscillate by means of one of the

handles *i*; the whole can then be allowed to fall down or it may, by working one of the levers *l l'*, be pushed back and hooked up in the position shown by the full lines on Figs. 1 and 2. These motions are very simple as the universal joints *m* allow the levers *l l'* to be moved in any direction in which a man's arm could move. To couple the wagon the "jib" or frame *k* is brought forward so as to raise the free link between the two draw hooks and if the trucks are sufficiently far away the said link is carried forward and lifted by the universal action of the hand lever *l* or *l'* over the draw hook (as shown at Fig. 1) and lowered thereon. In some cases however when the trucks are closer together the chain requires to be shortened before the link can be lifted clear of the draw hook, in which case this can be effected by first raising the link into the position shown at Fig. 3 by pulling back the chain *f* and shackle *e* by means of the rocking shaft *h* and then shooting the link forward and dropping it onto the draw hook, and it is this combined action of the rocking shaft and universally jointed levers enabling the free link of the coupling chain to be raised up and lowered and moved forward and backward, in fact in any direction which forms the principal novel and important feature of my invention.

I claim—

1. An apparatus for coupling and uncoup-

ling railway wagons or trucks without passing between the same, comprising the draw-hooks and three-link coupling chains, the center link of the chain being provided with a pivoted lifter and with stops, in combination with a jib and a hand lever connected to the jib and fixed to the wagon by universal joints, the said jib adapted to act upon the chain whereby the free link of the coupling chain can be raised, lowered, advanced or withdrawn so as to couple or uncouple the trucks from the outside, substantially as set forth.

2. An apparatus for coupling and uncoupling railway wagons comprising the draw-hooks and three-link coupling chains, the center link of the chain being provided with a pivoted lifter and with stops, in combination with a jib and a hand lever connected to the jib and fixed to the wagon by universal joints, a rocking shaft and chain and lever connections between the said center link and the said rocking shaft, all substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL HAMER.

Witnesses:

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JNO. HUGHES.