(No Model.)

W. B. LITTLE.

CAR COUPLING.

No. 342,967. Patented June 1, 1886.

Fig. 1.

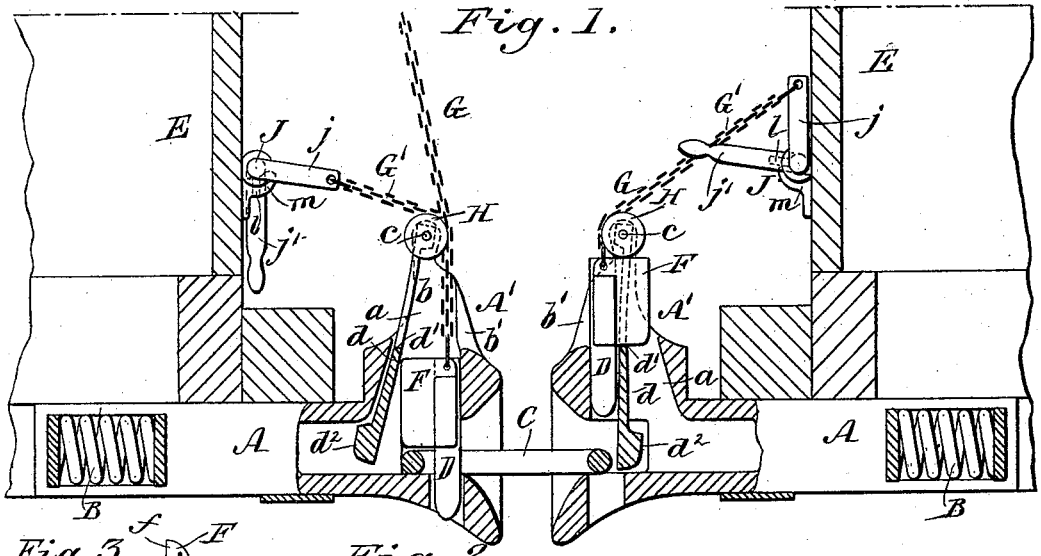


Fig. 3.

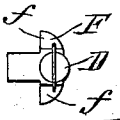
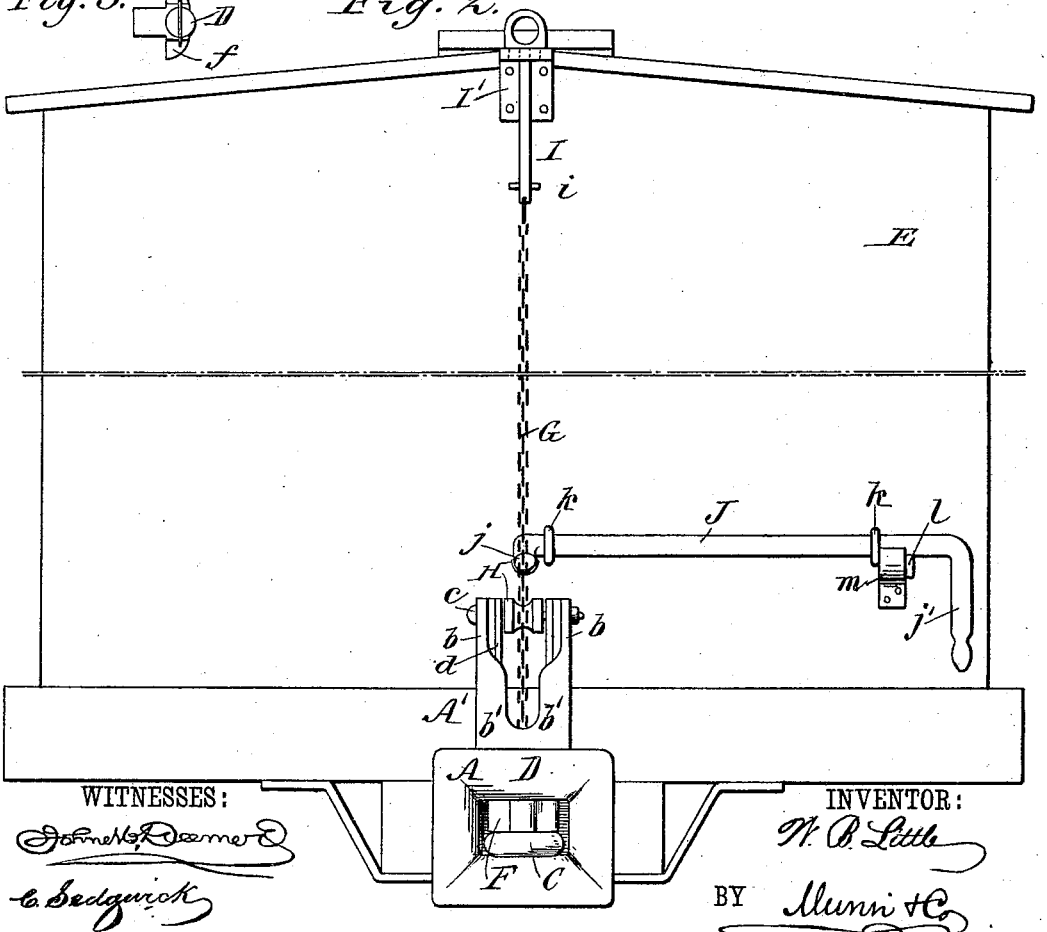


Fig. 2.



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WILLIAM BRUCE LITTLE, OF NEW YORK, N. Y.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 342,967, dated June 1, 1886.

Application filed November 12, 1885. Serial No. 182,570. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BRUCE LITTLE, of the city, county, and State of New York, have invented a new and Improved Car-Coupler, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of my new and improved car-coupler, shown applied to to two cars. Fig. 2 is a front elevation of a car body and coupler, showing the means for raising the coupling-pin; and Fig. 3 is a plan view of the weight-block and coupling-pin removed from the draw-head.

The invention will first be described in connection with the drawings and then pointed out in the claims.

A represents the draw-heads; B, buffer-springs, placed back of the draw-heads; C, the connecting-link, and D represents the coupling-pins.

The draw-heads A and buffer-springs B are attached to the car-bodies E in the usual or in any approved manner. In the upper wall of each draw-head is formed an opening, *a*, which is surrounded by an upwardly-projecting housing, A′, composed of the side pieces, *b b*, and front plates or flanges, *b′ b′*. In the said opening *a* and housing A′ is placed a weight-block, F, to which the coupling-pin D is attached, and the weight-block is adapted to be raised in the draw-head and housing A′ from the position shown at the left in Fig. 1 to that shown at the right for releasing the connecting-link C. The block F and pin D are prevented from being lifted out of the draw-head by the bolt *c*, passed through the upper ends of the side pieces, *b b*, as shown clearly in Fig. 2. Upon the bolt *c* is placed a swinging bail or tongue, *d*, which reaches down into the cavity of the draw-head. This tongue or bail *d* is slotted to form a support or rest, *d′*, for the weight-block F, for holding it and the pin D in an elevated position. The lower end of the tongue *d* is weighted, as shown at d^2, so that when the weight-block F is lifted above the shoulder *d′* the tongue will swing promptly forward under the weight-block to the position shown at the right in Fig. 1, and thus support the block and pin D. The lower end of the tongue *d* reaches down near to the lower wall of the cavity of the draw-head, so that when the connecting-link C enters the draw-head it will strike the tongue *d* and force it backward and swing the shoulder *d′* out from under the weight-block F and permit it and the coupling-pin D to drop, the pin D passing through the connecting-link, thus automatically coupling the cars.

When the weight-block F and coupling-pin D are at their lowest position, the block F rests upon the link C, as shown at the left in Fig. 1, and prevents it from drooping, so when the cars are backed together the link will enter the draw-head of the stationary or opposing car without attention and without other means for holding the link in line or in horizontal position.

For raising the block F and coupling-pin D, for uncoupling the cars, I employ a chain, G, attached to the block F. This chain passes up over the pulley H, placed upon the rod *c*, and thence to the top of the car, where it is connected to the plate I, held in an angle-plate, I′, so by lifting the plate I the cars may be uncoupled. A slot will be formed in the plate I, through which a small pin, *i*, in the plate I can pass, for holding the coupling-pin D and weight-block F in elevated position, the position they must occupy in shunting.

For raising the weight F and coupling-pin D at the side of the car for uncoupling from the ground I employ a bell-crank lever, J, the arm *j* of which is attached to the chain G by the short chain G′, while the arm *j′* stands near the side of the car, as shown in Fig. 2. The lever J is adapted to be shifted endwise in its keepers *k k*, and it is formed or provided with a side stud or pin, *l*, and near this pin or stud *l* is secured to the end of the car the shoulder or block *m*. The arms *j j′* of lever J, the pin or stud *l*, and the shoulder *m* are so arranged relatively to each other that when the arm *j′* is raised to horizontal position the arm *j* will lift the block F and pin D, and the stud *l* will stand above the shoulder *m*, so that by shoving the lever J slightly endwise the pin *l* will

rest upon the shoulder *m* and hold the block F and coupling-pin D in elevated position for shunting, &c.

The coupling-pin D is held from lateral movement in the draw-head by the side pieces, *f f*, of the weight-block F, as shown clearly in Fig. 3.

By constructing the car-coupler as described the same is cheap, durable, and reliable, and perfectly automatic, and is certain to act whether the cars be on a straight or curved track.

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

1. The combination, with the draw-head A, having the cavity *a*, of the weight-block F, sliding in the recess, and provided with the coupling-pin D, and the swinging tongue *d*, pivoted at its upper end to the draw-head, and slotted at *d'*, to receive a part of the rear face of the weight-block to hold said block and its pin D elevated, substantially as set forth.

2. The combination, with the draw-head A, having the cavity *a*, the housing A', and the pin *c*, having a pulley, H, in the upper part of said housing, of the vertically-sliding weight F, provided with the depending coupling-pin, the operating-chain secured to the said weight and passing over the pulley, and the counterbalanced swinging tongue *d*, pivoted at its upper end on the pin *c*, and having the slot *d'*, adapted to receive the projecting rear edge of the weight-block when raised, as and for the purpose set forth.

3. The combination, with a draw-head having a vertical cavity, of a weight-block therein formed or provided with a coupling-pin, and a tongue pivoted to the draw-head in rear of the weight-block and its pin, and adapted to engage the weight-block and hold it and the coupling-pin raised, the lower end of the tongue projecting below the coupling-pin in the path of the coupling-link when the coupling-pin is raised, substantially as set forth.

4. The draw-head A and coupling-pin contained therein and the bell-crank lever J, attached to the body of the car and provided with pin *l*, in combination with the block or shoulder *m* and the connections between the lever and the coupling-pin, the lever being adapted to be shoved endwise, substantially as described.

WILLIAM BRUCE LITTLE.

Witnesses:
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