(No Model.)

J. SHULTES.

CAR COUPLING.

No. 385,731. Patented July 10, 1888.

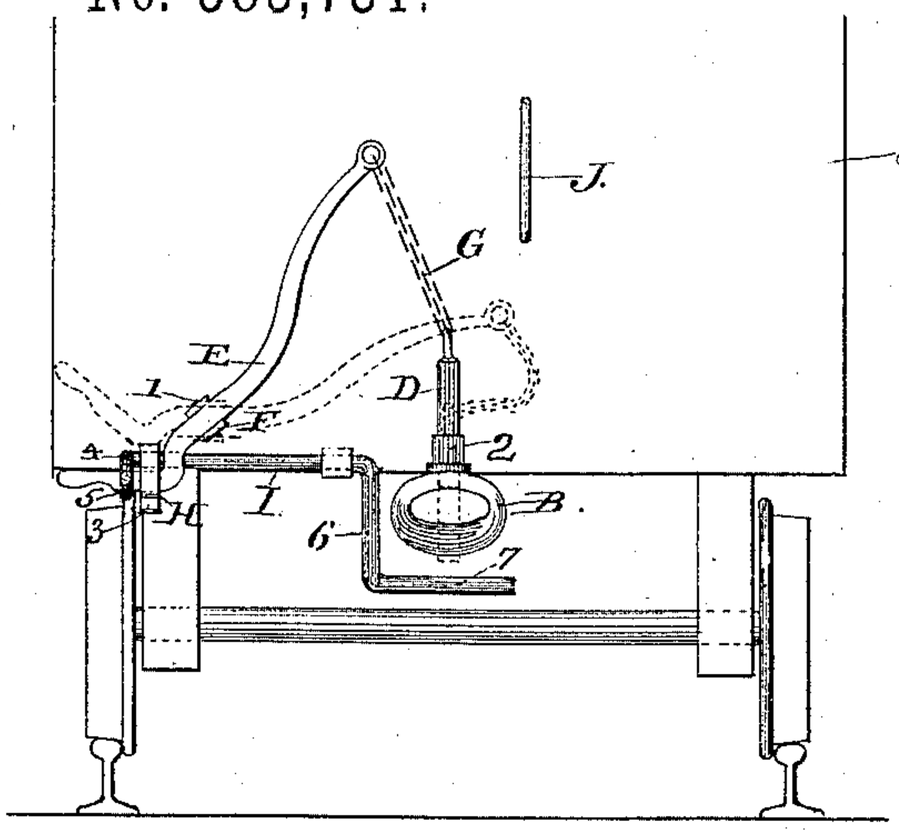

FIG. 1.

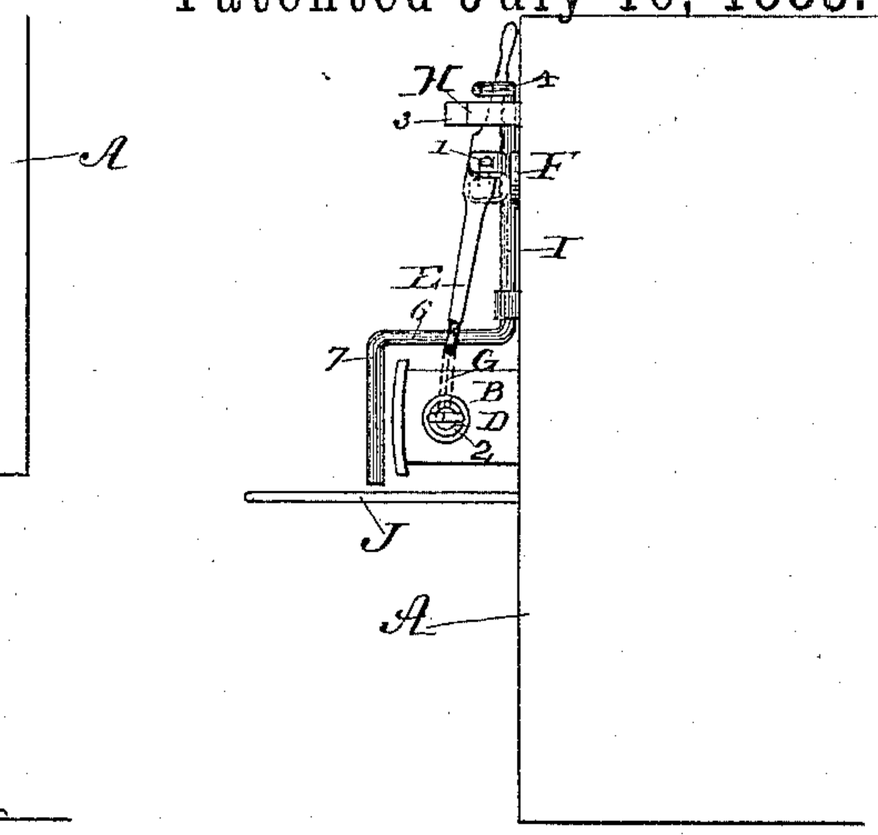

FIG. 2.

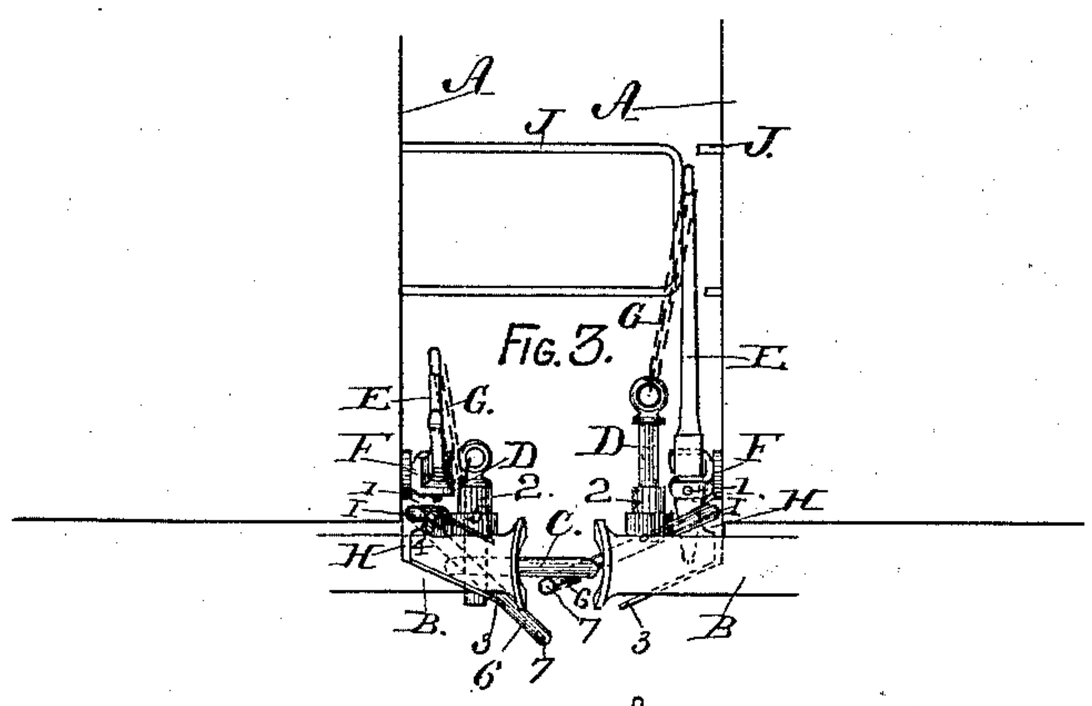

FIG. 3.

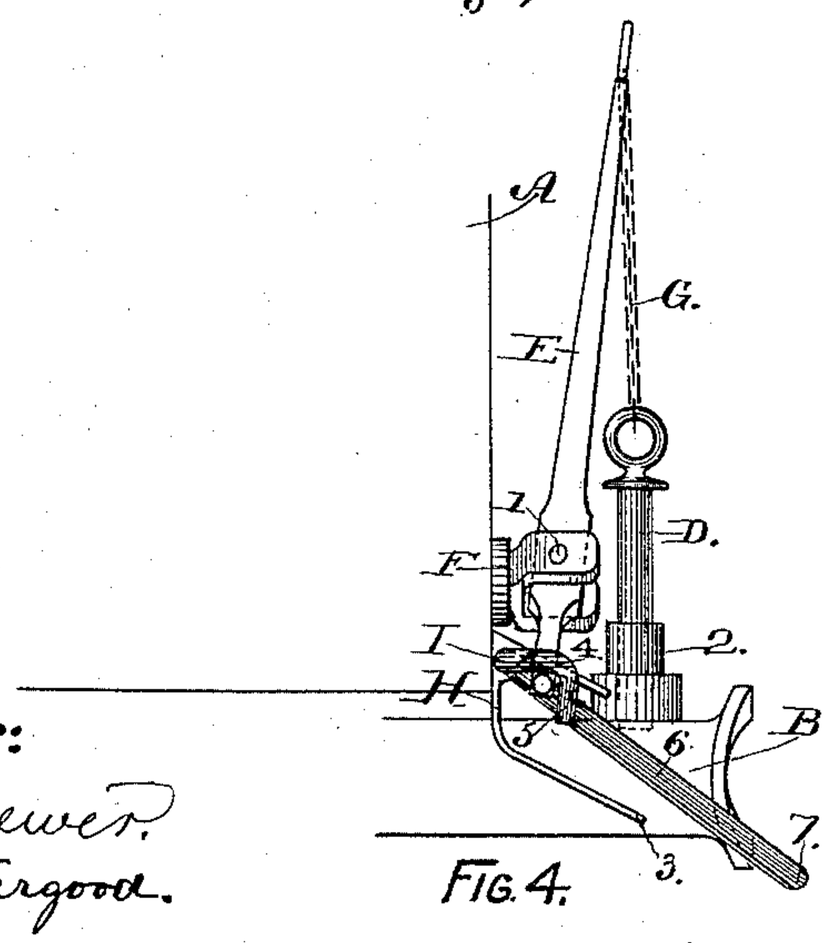

FIG. 4.

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UNITED STATES PATENT OFFICE.

JOHN SHULTES, OF WEST BERNE, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 385,731, dated July 10, 1888.

Application filed February 29, 1888. Serial No. 265,665. (No model.)

To all whom it may concern:

Be it known that I, JOHN SHULTES, of West Berne, in the county of Albany and State of New York, have invented new and useful Improvements in Car-Couplers, of which the following is a full and exact description, reference being had to the accompanying drawings, which form part of this specification, and in which—

Figure 1 is a front elevation of a car provided with my coupler. Fig. 2 is a plan view of the same. Fig. 3 is a side elevation of the conjoining ends of two cars provided with my coupler, with the parts in position to insert the coupling-link into the draw-head of a conjoining car; and Fig. 4 is an enlarged side elevation of the operating hand-lever, catch-piece, and rock-shaft for raising the coupling-link.

My invention relates to improvements on the old and well-known form of "link-and-pin" coupler that has been in use on railroads for many years; and my improvement, while it affords ample protection to human life and limb, retains all the parts of said coupler, and consequently does not involve the necessity of an entire and radical change in the system of couplers, which can only be made at an enormous expense.

The object of my improvement is to adapt the old link-and-pin coupler to be automatically coupled, and to effect the uncoupling of the same without requiring an operative to go between adjoining cars; and a further object of my invention is to provide means for raising the free end of a coupling-link to or nearly to the level of the opening in the draw-head with which it is to be coupled.

As represented in the drawings, A designates one end of a railway-car; B, the draw-head of a coupler; C, the coupling-link, and D the coupling-pin. All of said parts are so old and well known that a more particular description of them is not considered necessary.

E is a hand-lever by which the coupling-pin is raised and sustained in its raised position. Said lever is pivoted by a pin, 1, to a swivel-joint, F, that is attached to the end of the car, and its inner end is connected by a chain or cord, G, to the upper end of the coupling-pin D, the latter being fitted to move in a vertical line in a sleeve, 2, that is inserted in the upper side of the draw-head B. The outer end of said hand-lever is fitted to engage under a catch-piece, H, which is fixed to the end of the car, and which inclines downwardly, so that in sliding the end of the hand lever from under said catch piece the outer end of said lever will be depressed. Said catch-piece has a lower arm, 3, which projects farther rearwardly from the end of the car than the upper arm, and which serves to guide the outer end of the hand-lever E to its place under the catch-piece H. Said lower arm is also inclined downwardly, so as to be nearly parallel with the inclination of the catch-piece H.

I is a rock-shaft, which is journaled to the end of the car, and has at its outer end a horizontal arm, 4, that is at right angles to the body of said shaft, and from said arm depends a short pin, 5, which is fitted to engage over the outer end of the hand-lever E, so as to retain the outer end of the latter (when said outer end is depressed) closely to the end of the car. Said rock-shaft has at its inner end an arm, 6, which is bent at right angles to the body of said shaft, and at the extremity of said arm there is a horizontal limb, 7, which extends beyond the center line of the car. When the rock-shaft I is in its normal position, whether the coupling pin D is raised or depressed, the limb 7 will lie transversely slightly below the draw-head B, as shown in Fig. 1. In raising the coupling-pin D by means of the hand-lever E the outer end of said lever is depressed until it bears upon the outer part of the arm 3 of the catch-piece H, and is then thrown back to pass under the pendent pin 5 of the rock-shaft, and by the latter said hand-lever is retained to hold the coupling-pin in its raised position until released, in the manner hereinafter explained.

J is a striker, which is fixed to each end of every car, and so arranged that when two cars are brought together end to end said striker will be brought into contact with the raised end of the hand-lever E of a conjoining car, and thereby effect the dislodgment of said hand-lever from the catch-piece by which it is held. In effecting the dislodgment of said hand-lever from the catch-piece H, the outer end of said lever, by its engagement with the pendent pin 5, causes the rock-shaft I to roll

in its journals, and thereby the limb 7 of said rock-shaft will be raised to the position shown by the full lines of the right-hand part of Fig. 3, where it will raise up the outer end of the coupling-link C of the next car to a proper level for entering the opening of the draw-head of the car to which said rock-shaft is attached. The continued movement of the moving car causes the striker to press the inner end of the hand-lever E toward the end of the car to which it is attached, and thereby the opposite end of said lever is released from the outer end of the rock-shaft, thereby leaving the latter free, so that its limb A will return to its normal position, where it will be clear from any interference with the draw-heads of the two cars.

I claim as my invention—

1. In a car-coupler, the combination of a draw-head, a coupling-link, a coupling-pin, a hand-lever pivoted to a swivel-joint and flexibly connected to said coupling-pin, a catch-piece fitted to engage with the outer end of said hand-lever when the latter is depressed, and a striker (attached to a conjoining car) which is fitted to strike directly against said hand-lever to dislodge it from said catch-piece, as and for the purpose herein specified.

2. In a car-coupler, the combination of a coupling-link, a hand-lever which is pivoted to the car to vibrate both vertically and sidewise, a draw head provided with a coupling-pin which is flexibly connected to said hand-lever, so that the latter can raise said pin in said draw-head, a rock-shaft having at its outer end an offset pendent pin that is fitted to engage with said hand-lever and at its inner end an offset limb that is fitted to raise the coupling-link of an incoming car, a catch-piece fitted to engage with and retain the outer end of said hand-lever, and a striker (attached to a conjoining car) that is fitted to strike said hand-lever and dislodge it from said catch-piece and rock-shaft, as and for the purpose herein specified.

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