

(No Model.)

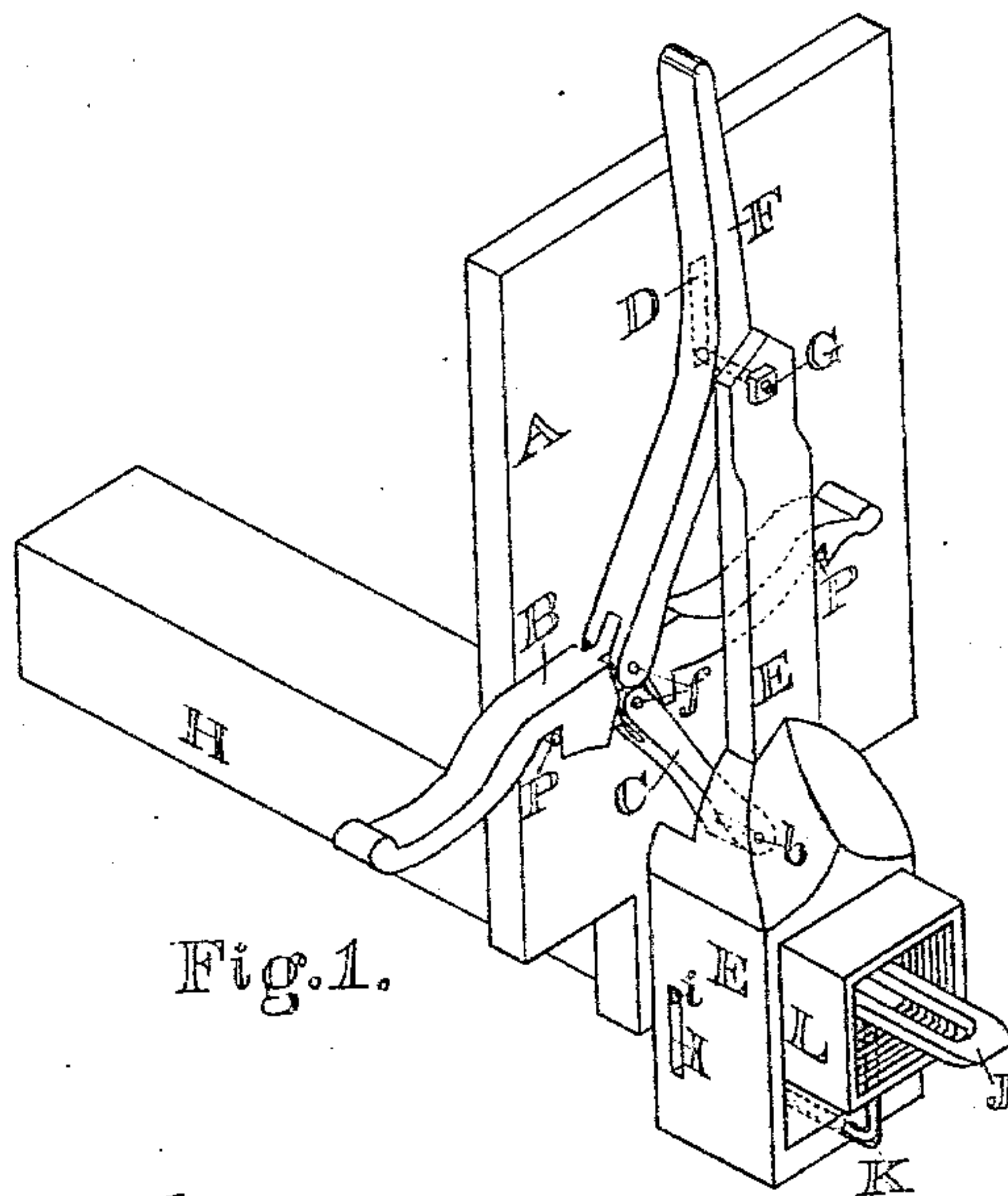
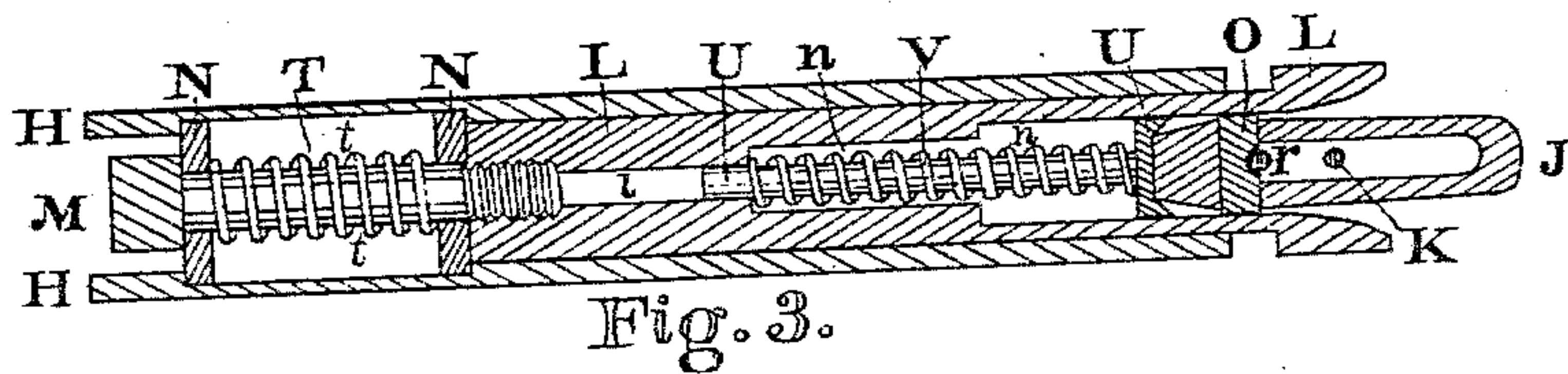
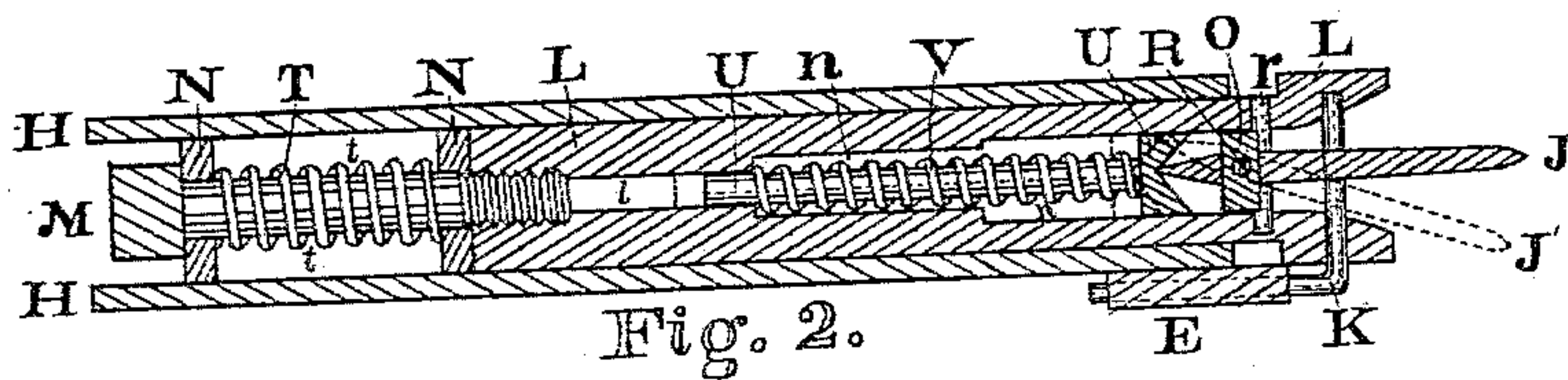
M. C. CANNAN, Dec'd.,

J. R. COOLBAUGH, Administrator.

CAR COUPLING.

No. 318,958.

Patented June 2, 1885.



Witnesses:

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UNITED STATES PATENT OFFICE.

JESSE ROGERS COOLBAUGH, OF WYSOX, PENNSYLVANIA, ADMINISTRATOR
OF MATTHEW C. CANNAN, DECEASED.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 318,958, dated June 2, 1885.

Application filed June 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, JESSE ROGERS COOLBAUGH, a citizen of the United States, residing at Wysox, in the county of Bradford and State of Pennsylvania, administrator of the estate of MATTHEW CAMPBELL CANNAN, late of Ulster, county and State aforesaid, deceased, have applied for Letters Patent for a certain new and useful invention invented by the above-named MATTHEW CAMPBELL CANNAN, called the "Cannan Car-Coupler," for coupling and uncoupling railroad-cars, of which the following is a specification.

This invention relates to an improvement in car-couplers; and the object of the invention is to provide a good and sufficient car-coupling that may be operated from either side or top of cars, thereby saving time, and also avoiding the necessity of the operator going between the cars in coupling and uncoupling the same. These objects are attained by the mechanism illustrated in the accompanying drawings, in which similar letters refer to similar parts throughout the several views.

Figure 1 is a perspective view of the draw-bar and coupling devices. Fig. 2 is a vertical longitudinal section, and Fig. 3 is a horizontal section thereof.

A represents the end of the car, and F B C the levers for coupling and uncoupling from the sides or top of the car.

F is an elbow-lever pivoted at its elbow to an extension of the sliding box E by bolt G, which slides in the slot D in the end of the car. The lower end of lever F is pivoted to the cross-lever B, which extends to either side of car. The toggle-lever C is pivoted to the cross-lever by bolt f, and its lower end is pivoted upon the end of the car by bolt b.

E represents a sliding box, which carries the coupling-pin K upward through link J, to couple the cars and downward to uncouple, and is operated by the levers F B C.

L represents a metal draw-bar, in one piece, having square opening *n n* to receive link-follower U U, with its spiral spring V, which operates it. The opening also receives link J, with its collar O. The draw-bar has a flaring mouth sufficient to receive links from cars of different heights and widths, and also has an opening in opposite end for bolt M to screw

in; also, a round opening, *l*, extending from end of bolt M to square opening *n*, for link-follower U to operate in.

J is a coupling-link with wedge-shaped rear end resting in socket of link-follower U, as shown in Figs. 2 and 3, the sides of said link tapering each way from link-collar O, and the corners being slightly rounded at each end.

K represents an angular coupling-pin attached horizontally movable to the bottom of sliding box E, and then passes vertically up through draw-bar L, and may be made of solid round metal bent at a right angle, or of bars simply joined together at the angle, which will facilitate the removal and replacing of pins in case of breakage.

H represents the elongated box in which draw-bar L plays back and forth, being acted upon by spiral spring T, placed between washers N N, said washers sliding in rabbets *t t* in rear end of box H. The bottom of car, together with timbers and iron plates that are used around many of the draw-bars in present use, may take the place of box H.

N N are square-cornered washers operating in rabbets *t t*.

T is a spiral spring between washers N N in rabbets *t t*, and is for the purpose of buffer and draw spring by means of bolt M passing through washer N, spiral spring T, and other washer, N, and then screwing into rear end of draw-bar L.

M is a bolt that screws into rear end of draw-bar L and takes the draft-strain.

U U represent a link-follower with square-shaped outer end, having therein an oblong socket, in which rests the inner end of link J.

V is a spiral spring acting upon link-follower for the purpose of keeping link J at all times in place to enter of itself and without assistance the mouth of draw-bar L on opposite car.

O is a square-cornered collar around link J near its inner end, and can be made of half-round iron or any metal of similar shape best adapted for the use it serves, the flat side being toward the link.

R is a pin running laterally through collar O and link J, said link being suspended thereon, and it is by means of link-follower U U and collar O and pin R, acted upon by spiral spring

V, that link J is kept in a horizontal position for use, and by means of socket in outer end of link-follower and the flaring mouth of draw-bar that the end of link is movable up or down to one side or the other, as is necessary in coupling cars of unequal heights and widths, and link J may take the position of J' when attached to a similar draw-head on a lower car; and as each and every draw-head has its own link the above arrangement allows the link to pass over or under the opposite link, when one or both links may be coupled by pin or bar K in opposite draw-head, thereby making a double or single link-coupling, as necessity may require.

r is a pin passing through top of draw-head L, thence through opening in link J, close in front of collar O, and then into bottom of draw-head L. It is the inner bearing-bolt of link J, and aids in keeping said link suspended in place for use, as may be seen in Fig. 2, and is only moved in case of removing and replacing link for repairs.

P P are stationary pins in end of box-car, on which lever B rests and operates upon horizontally across end of car; and B is the lever by which the operator raises or lowers coupling-pin when standing at either side of car. The coupling is done from top of car by lifting, and at same time throwing lever F over to the right, and uncoupling by throwing in opposite direction. The lever B has three shoulders or offsets on the bottom, and, as shown in Fig. 1, two of these rest against pins P P, and said pins hold the levers when pin K' is dropped down to its proper place when uncoupled, and the other shoulder rests against pin P at the right, and this pin keeps it there when coupling-pin K is raised to place in coupling by levers being thrown to that side; and in case it is found that this pin P at the right is not sufficient at all times to hold the levers in place when cars are coupled, spirals or any springs answering a like purpose may be placed under the top of the opening of sliding box E and directly over draw-bar L, which will not only serve as a lock in keeping sliding box E up when coupled, but would assist in raising the same when operated. The levers F B C are more especially calculated for freight-cars, yet may be used on many others, and on some cars—such as flats—where the levers F B C and extension on sliding box E are in the way, said box may be moved up and down by simply running levers from each side of car, attaching them to sliding box E, and pinning them to car at a proper leverage distance from box E, thereby doing away with levers F B C and extension on sliding box E.

I am aware that prior to this invention car-couplers have been made using washers and spiral springs in and about their construction similar to these. I therefore do not claim the whole, broadly, as described in the specification, and shown in the drawings; but

What I do claim in this invention, and desire to secure by Letters Patent, is—

1. In a car-coupling, the combination of the upright lever, the cross-levers pivoted together, and the vertically-sliding box carrying the coupling-pin, whereby the coupling is effected from the top of the car, or from either side by operating one of the levers, substantially as described.

2. In a car-coupling, the combination of the vertically-sliding box provided with a coupling-pin, the side levers, and the lever connecting the said side levers to the sliding box, substantially as and for the purpose described.

3. In a car-coupling, the vertically-sliding box E, sliding over the draw-head, and into which the draw-bar passes, and provided with a coupling-pin, in combination with the toggle-jointed levers for operating the same, substantially as described.

4. In a car-coupling, the combination, with the draw-head provided with the collar O, of the link pivoted to said collar, substantially as and for the purpose described.

5. The combination, with the draw-head, of an open link secured to said draw-head, the collar, to which said link is pivoted, the link-follower provided with a socket to receive the end of the link, and the spring V, substantially as and for the purpose described.

6. In a car-coupling, the combination, with the vertically-sliding box, the side levers pivoted together, and provided with the shoulders or offsets, in combination with pins P, whereby the levers and the coupling-pin are held in their proper place when the car is coupled or uncoupled, substantially as described.

7. A car-coupling comprising, in combination, the draw-head, the box provided with a coupling-pin sliding over and above the draw-head, the top and side levers for operating said sliding box, the link pivoted within and permanently secured to the draw-head, the draw-bar provided with the socketed head, and the springs in connection with the draw-bar, substantially as described.

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Witnesses:

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