(No Model.)

J. H. TALPEY.

CAR COUPLING.

No. 493,534. Patented Mar. 14, 1893.

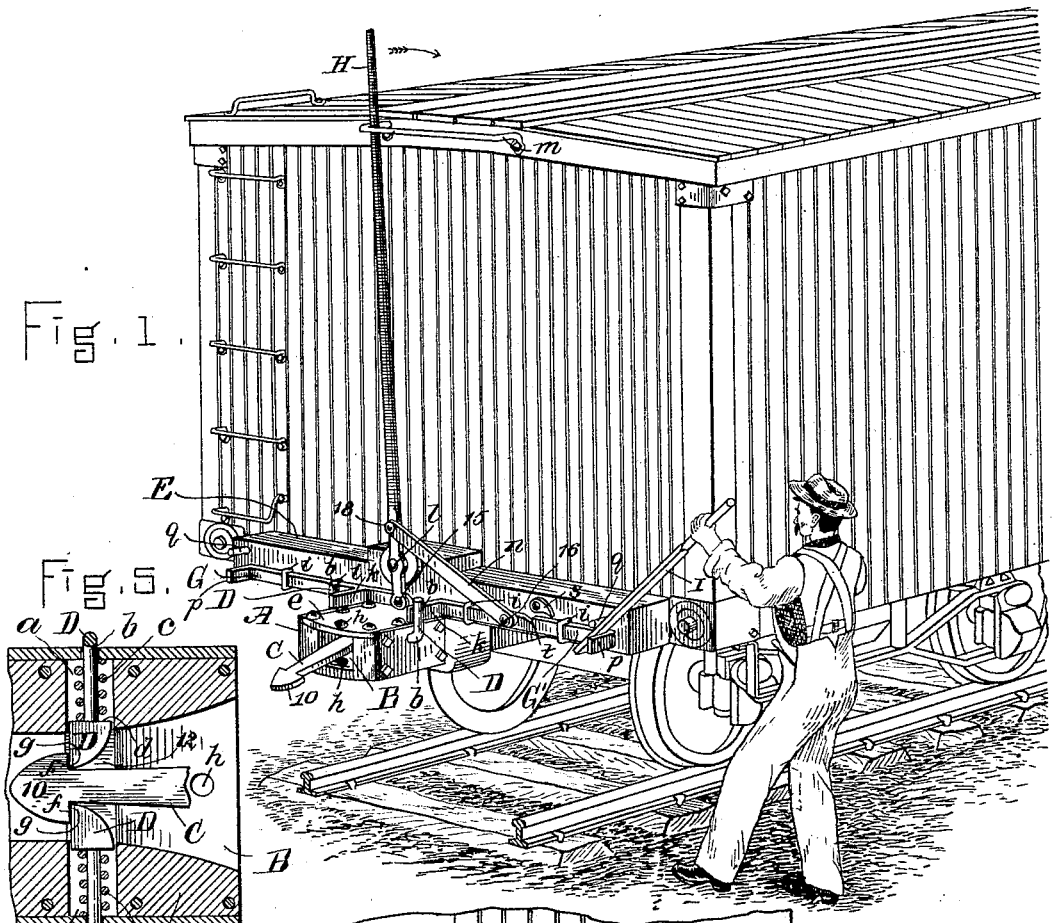

Fig. 1.

Fig. 5.

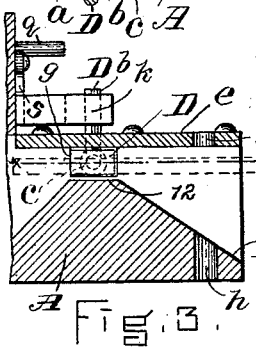

Fig. 3.

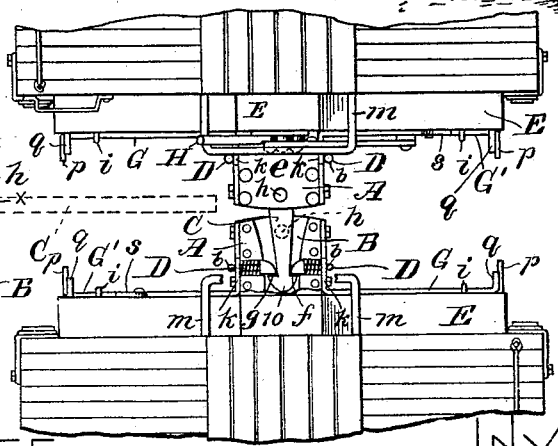

Fig. 2.

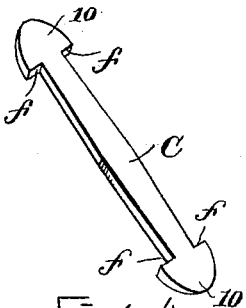

Fig. 4.

WITNESSES.

Henry Marsh.

Harry H. Atkins

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by F. C. Teschemacher Atty.

UNITED STATES PATENT OFFICE.

JOHN H. TALPEY, OF RICHMOND, MAINE, ASSIGNOR OF ONE-HALF TO CHARLES H. T. J. SOUTHARD, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 493,534, dated March 14, 1893.

Application filed June 22, 1892. Serial No. 437,621. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. TALPEY, a citizen of the United States, residing at Richmond, in the county of Sagadahoc and State of Maine, have invented certain new and useful Improvements in Car-Couplings, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of the end of a freight-car provided with my improved automatic coupling device. Fig. 2 is a plan of the opposing ends of two cars connected together by means of couplings constructed in accordance with my invention, the covering plate of one of the draw-heads being removed to show the interior construction. Fig. 3 is an enlarged central vertical section of the front portion of the draw-head. Fig. 4 is an enlarged view of the coupling hook or bar. Fig. 5 is a horizontal section on the line *x x* of Fig. 3.

My invention relates to an improvement on the car coupling for which Letters Patent of the United States No. 429,180 were granted to me June 3, 1890, and has for its object to improve the construction of the coupling whereby it is rendered more durable and effective, and more easily and conveniently operated than before; and to this end my invention consists in the novel construction and combinations of parts as hereinafter described and specifically pointed out in the claims.

In the said drawings, A represents the draw-head of a railway-car, within which is formed a longitudinal chamber B adapted to receive one end of the coupling-hook C, which consists of a flat bar having its ends 10 10 shaped approximately like an arrow-head, as shown in Figs. 1, 4, and 5.

D, D, are slide-bars arranged to move in a horizontal plane in transverse chambers *a*, *a*, formed in the draw-head, opposite to each other, the inner ends of the bars D projecting into the chamber B and being sloped or curved horizontally as shown. The outer ends of the slide-bars D project through suitable apertures in the sides of the draw-head, and are turned upward at a right angle as shown at *b*, Fig. 1, and within these chambers *a*, *a*, are placed spiral springs *c*, *c*, which encircle the shanks of the bars and bear against the shoulders *d* of said bars and the outer ends of the chambers *a*, said springs serving to force said bars toward each other, their inward movement being limited by the contact of the upwardly bent portions *b* with the sides of the draw-head.

The chambers B, *a*, *a*, are covered by a plate *e* which forms the top of the outer portion of the draw-head and is secured thereto by means of screw bolts or in any other suitable manner, the bottom of the chamber B being inclined inward and upward to the rest 12 for the coupling-hook as shown to give to the draw-head a flaring mouth in a vertical plane and thereby facilitate the entrance of the said coupling-hook at different levels.

The coupling-hook C is sustained in a horizontal position or thereabout in the draw-head by bearing at its bottom on the said rest 12, and at its top against the underside of the covering plate *e*, as seen in Fig. 3, and on passing into the opposing draw-head, enters between and forces the slide-bars D, D, apart until the shoulders *f*, *f*, of the coupling-hook pass the points *g*, *g*, of the slide-bars D, when the latter will be moved inward by their springs *c*, *c*, and the coupling-hook locked to the draw-head.

The outer end of the draw-head is curved horizontally as shown, to facilitate the operation of coupling two cars on a curved track, and said draw-head is provided with a hole *h* extending vertically through its covering plate and bottom to receive an ordinary coupling pin when a link-coupling is used to connect the draw-heads as may sometimes be required.

On the buffer-block E, which lies immediately above the draw-head, are two bars G, G′, arranged to slide horizontally in guides *i*, said bars being provided with outwardly extending arms or projections *k* which engage the turned up outer ends *b* of the slide-bars D. The inner end of the bar G is pivoted at 15 to a lower end of the lever H fulcrumed at *l* on the block E and extending up through a guide *m* to the top of the car, as shown in Fig. 1, the opposite bar G′ being connected with said lever H by a connecting rod *n* pivoted to

the bar G′ at 16 and to the lever H at 18, the pivots 15 and 18 being located at equal distances from the fulcrum *l*.

When it is desired to release or disengage the coupling-hook from the draw-head, the lever H is thrown over in the direction of the arrow, Fig. 1, by a person on the top of the car, causing the slide-bars G, G′, to be simultaneously moved in opposite directions, when the projections *k*, *k*, will engage the upturned ends *b*, *b*, of the slide-bars D, D, and force the latter apart, the coupling-hook being then free to be drawn out of the head A. The outer end of each of the horizontal bars G, G′, is bent outward at a right angle, forming a projection *p* accessible to a person standing beside the car, and above and a little to one side of each of the projections *p* is a stationary fulcrum pin *q*, whereby by means of any suitable short bar or lever I introduced between the said projection and pin, as seen in Fig. 1, the bars G, G′, may be operated from either side to uncouple the cars without going between the same, thereby avoiding all liability of accidents from this cause.

s is a pawl which is adapted to engage a notch *t* in the bar G′ thereunder when the bars G G′ are drawn back, thereby holding the slide bars D, D, apart when it is not desired that the coupling should operate automatically; and said pawl *s* is preferably pivoted with sufficient friction to prevent it from dropping onto the bar thereunder by its own weight. If desired another pawl *s* may be placed in an accessible position on the opposite side of the car adapted to engage a notch in the bar G.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a car-coupling, the draw-head provided with the chambers B and *a*, *a*, the spring actuated slide-bars D, D, moving in said chambers *a*, *a*, and extending into the chamber B and through the sides of the draw-head and having their outer ends turned upward as shown, combined with the slide-bars G G′ provided with projections *k*, *k*, adapted to engage the turned up outer ends of the bars D, D, the hand lever H connected with the bars G G′ and adapted to move the same simultaneously in opposite directions to separate the inner ends of the bars D, D, and the arrow-headed coupling-hook C, adapted to move the bars D, D, apart to engage therewith, all operating substantially as described.

2. In a car-coupling, the draw-head provided with the chambers B and *a*, *a*, and the spring-actuated slide-bars D D movable in said chambers *a*, *a*, and having their outer ends *b* turned upward as shown, in combination with the slide-bars G G′ provided with projections *k*, *k*, adapted to engage the turned up outer ends of the bars D, D, the lever H connected beneath its fulcrum with the bar G, the connecting-rod *n* pivoted to said lever H above its fulcrum and at its opposite end to the bar G′, and a pawl *s* adapted to engage one of said bars G or G′ to hold the inner ends of the bars D, D, apart against the stress of their springs, substantially as set forth.

3. In a car-coupling, the draw-head provided with the chambers B and *a a*, and the spring-actuated slide-bars D, D, movable in said chambers *a*, *a*, and extending into the chamber B and through the sides of the draw-head and having their outer ends turned upward as shown, in combination with the slide-bars G G′ provided with projections *k*, *k*, adapted to engage the turned up outer ends of the slide-bars D, D, and at their outer ends with projections *p*, *p*, the lever H connected with the bars G, G′, and the stationary fulcrum pins *q* arranged in proximity with the projections *p*, whereby the bars G G′ may be operated from either side of the car to release the coupling-hook C by a bar or lever introduced between one of said fulcrum pins *q* and the adjacent projection *p* of the bar G or G′, substantially as set forth.

Witness my hand this 16th day of June, A. D. 1892.

JOHN H. TALPEY.

In presence of—
J. M. ODIORNE,
WM. H. STUART.