

(No Model.)

H. A. GILES.

CAR COUPLING.

No. 331,126.

Patented Nov. 24, 1885.

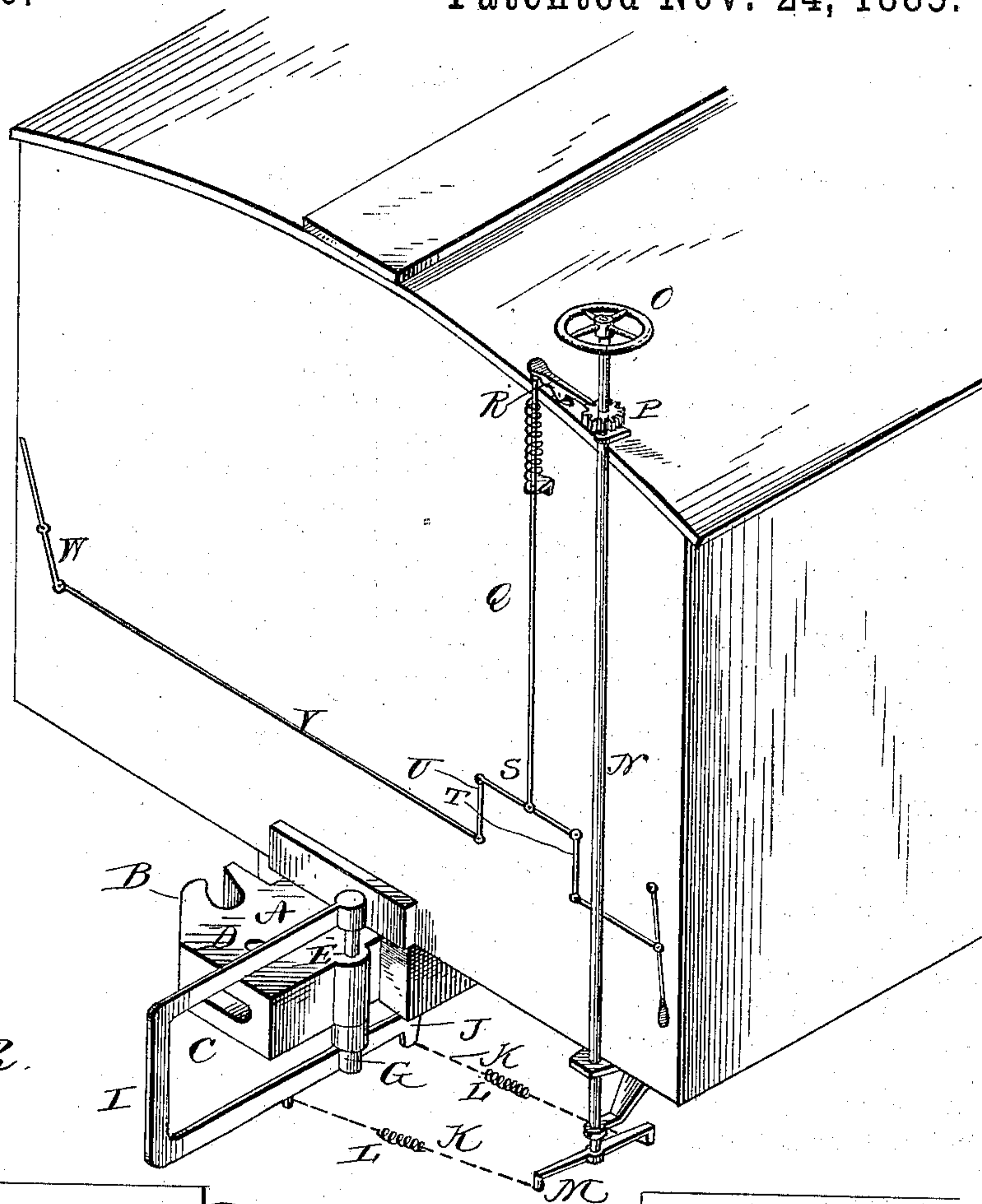
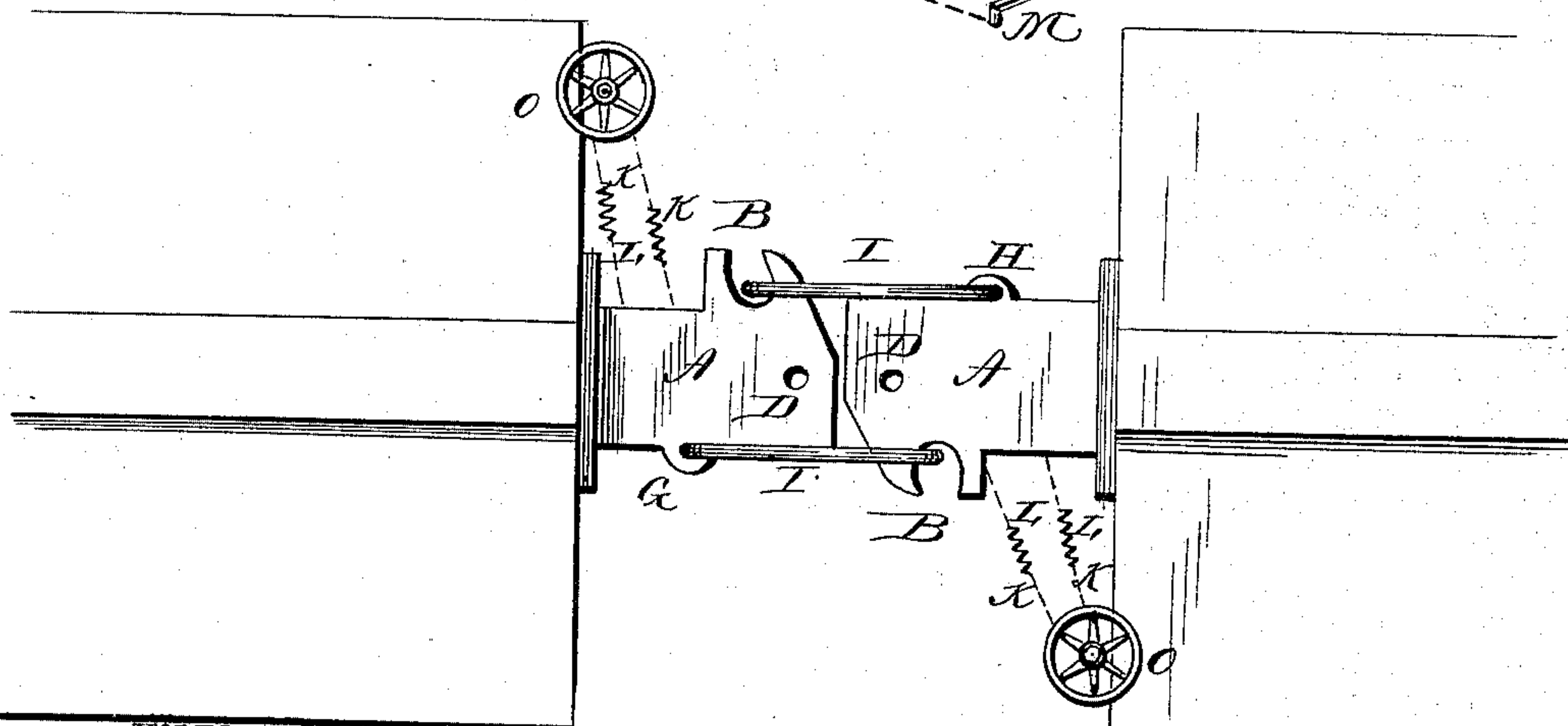


Fig. 2.



**WITNESSES**

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**INVENTOR**

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# UNITED STATES PATENT OFFICE.

HARVEY A. GILES, OF DOWS, IOWA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 331,126, dated November 24, 1885.

Application filed September 28, 1885. Serial No. 178,414. (No model.)

*To all whom it may concern:*

Be it known that I, HARVEY A. GILES, a citizen of the United States, and a resident of Dows, in the county of Wright and State of Iowa, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to 5 which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of the front 15 end of a railroad-car provided with my improved car-coupling, and Fig. 2 is a top view of two couplings coupled together.

Similar letters of reference indicate corresponding parts in both the figures.

20 My invention has relation to that class of car-couplings in which a long bail or link is pivoted at one end to swing in a horizontal plane, so as to engage a hook upon the opposite coupling; and it consists in the improved 25 construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the draw-head, which is formed 30 with a laterally-projecting horn or hook, B, and with a recess, C, in its outer end, having a vertical perforation, D, passing through it, the said recess and perforation being for the reception of the usual pin and link, where 35 the coupling is used in connection with a car having the common pin-and-link coupling. The draw-head has a vertical perforation, E, at the inner end of the same and at the edge opposite to the edge having the hook, and a 40 pin, F, passes through the said perforation, and has the inner perforated ends, G and H, of a long loop or bail, I, pivoted upon it above and below the draw-head, swinging in a horizontal plane. The inner end of the lower arm 45 of the bail or link is extended to form an arm, J, and a chain, K, is attached to the end of this arm, and a similar chain, K, is attached to the lower arm of the link at the same distance forward of the perforation and the pin 50 as the other chain is back of the said perforation and pin. These chains are provided with

spiral springs L at their middles, and are secured at their outer ends to the ends of a bar or lever, M, attached at its middle to a vertical shaft, N, journaled in vertical bearings 55 upon the front of the car. The upper end of this shaft is provided with a hand-wheel, O, for operating it, and near the upper end of the shaft is secured a cogged wheel, P, which is engaged by the upper end of a vertically-sliding spring-bolt, Q, having a treadle or foot-piece, R, at its upper end to the side of the portion engaging the cogged wheel. The lower portion of this spring-bolt is connected 65 by means of links S to two bell-crank levers, T and U, one, T, of which has its other arm projecting out to the side of the car, while the other bell-crank, U, has a rod, V, attached to its other arm, to the outer end of which rod a lever, W, is pivotally attached, the said lever and the bell-crank levers being pivoted 70 upon the front end of the car. It will now be seen that when two couplings are brought together the links may first be thrown to the sides by turning the hand-wheel, and after the 75 ends of the draw-heads have come together the links may be tilted, so as to engage the hooks of the opposite draw-heads, thus coupling the draw-heads. The springs in the chains connecting the links with the tilting levers upon the vertical shafts will serve to allow 80 the links to yield slightly to both sides, as the cars will sway from one side to the other during travel, the springs keeping the links in engagement with the hooks and preventing them 85 from being forced out by any motion of the cars. The spring-bolt will hold the cogged wheel and through it the vertical shaft in position as adjusted, and the links can neither be coupled or uncoupled without disengaging the 90 said spring-bolt from the cog-wheel, the spring-bolt being either depressed by the treadle from the top of the car or by drawing either the outer bell-crank lever or the lever at the other side of the car outward, the said bell-crank 95 lever and hand-lever being applied to the front of the car for the purpose of releasing the operating-shaft from the ground, the person standing at the side of the car. After the spring-bolt has been disengaged from the cog-wheel the link may be operated from the 100 ground by tilting the lever upon the lower



end of the vertical operating-shaft. The spring-bolt may be of any other suitable construction—as, for instance, it may be a lever pivoted upon the top of the car and having one end engaging the cogs of the wheel, while the other end has a spring bearing upward against it, and a rod may pass down the front end of the car and be pivoted to a crank upon a horizontally-journaled shaft upon the front of the car, said shaft having suitable handles or levers at its ends for tilting it. The link is somewhat wider than the thickness of the draw-head, so that it may be moved up and down upon the bolt, and a washer, X, may be placed upon the pin or bolt either above or below the draw-head for the purpose of supporting the link to enable it to engage hooks upon either high or low cars, as the occasion may require it.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a car-coupling, the combination of a draw-head having a laterally-projecting hook, a link pivoted at its inner end upon the draw-head to swing in a horizontal plane and to engage the hook of the opposite draw-head, and chains for operating the said link having springs for cushioning the lateral motion of the link, the said chains being attached to the link and drawing it in opposite directions, as and for the purpose shown and set forth.

2. In a car-coupling, the combination of a draw-head having a laterally-projecting hook at one side and a vertical perforation at the inner end of the other side, a bolt passing

through the said perforation, a link pivoted at its ends upon this bolt, swinging outside of the forward end of the draw-head, and having the inner end of its lower arm extended beyond the pivotal point, and operating-chains secured to the lower arm of the link at equal distances from the pivotal point in front and to the rear of the same and having springs at their middles, as and for the purpose shown and set forth.

3. In a car-coupling, the combination of a draw-head having a laterally-projecting hook at one side and a vertical perforation at the inner end of the other side, a bolt passing through the said perforation, a link pivoted upon the said bolt to swing forward of the draw-head and having the rear end of its lower arm extended beyond the pivotal point, a washer placed upon the bolt between the link and the draw-head, a vertical shaft having a hand-wheel at its upper end and means for securing it in its adjusted position and provided with a lever at its end, and chains secured to the ends of the lever and to the lower arm of the link at equal distances from the pivotal point and provided with yielding springs, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

HARVEY A. GILES.

Witnesses:

F. M. WILLIAMS,  
ALICE WILLIAMS.