(No Model.)

T. T. & J. M. DEAVENPORT.

CAR COUPLING.

No. 316,446. Patented Apr. 28, 1885.

Fig 1.

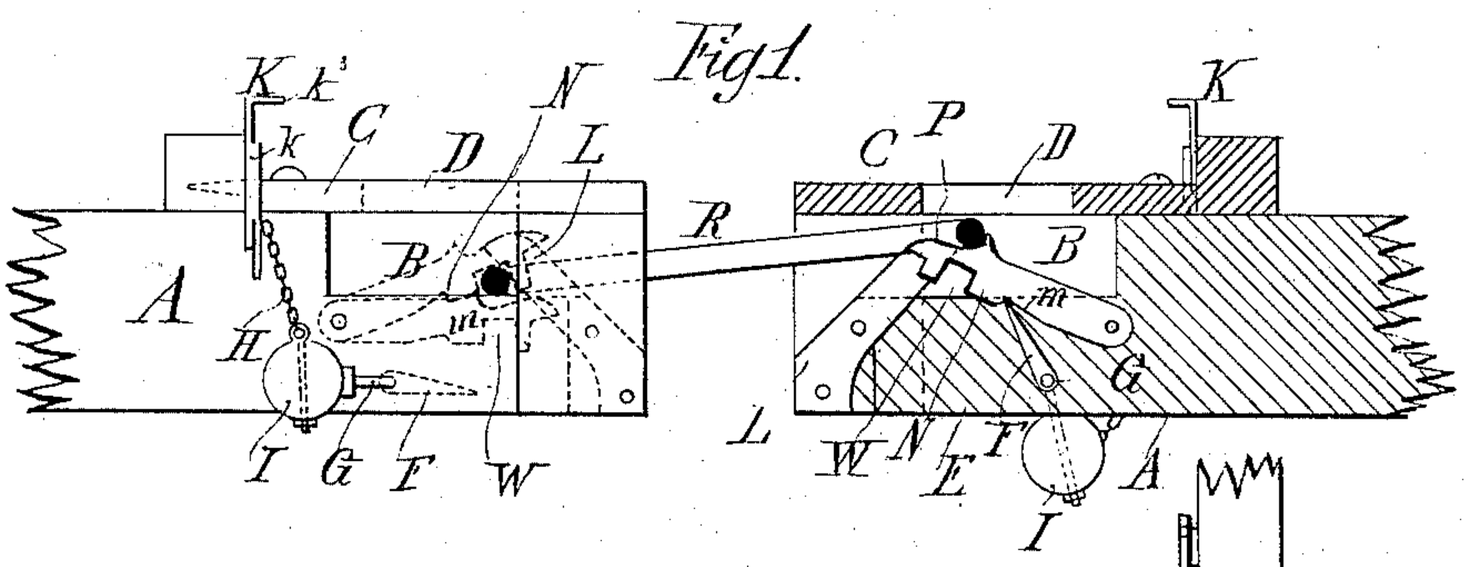


Fig 2.

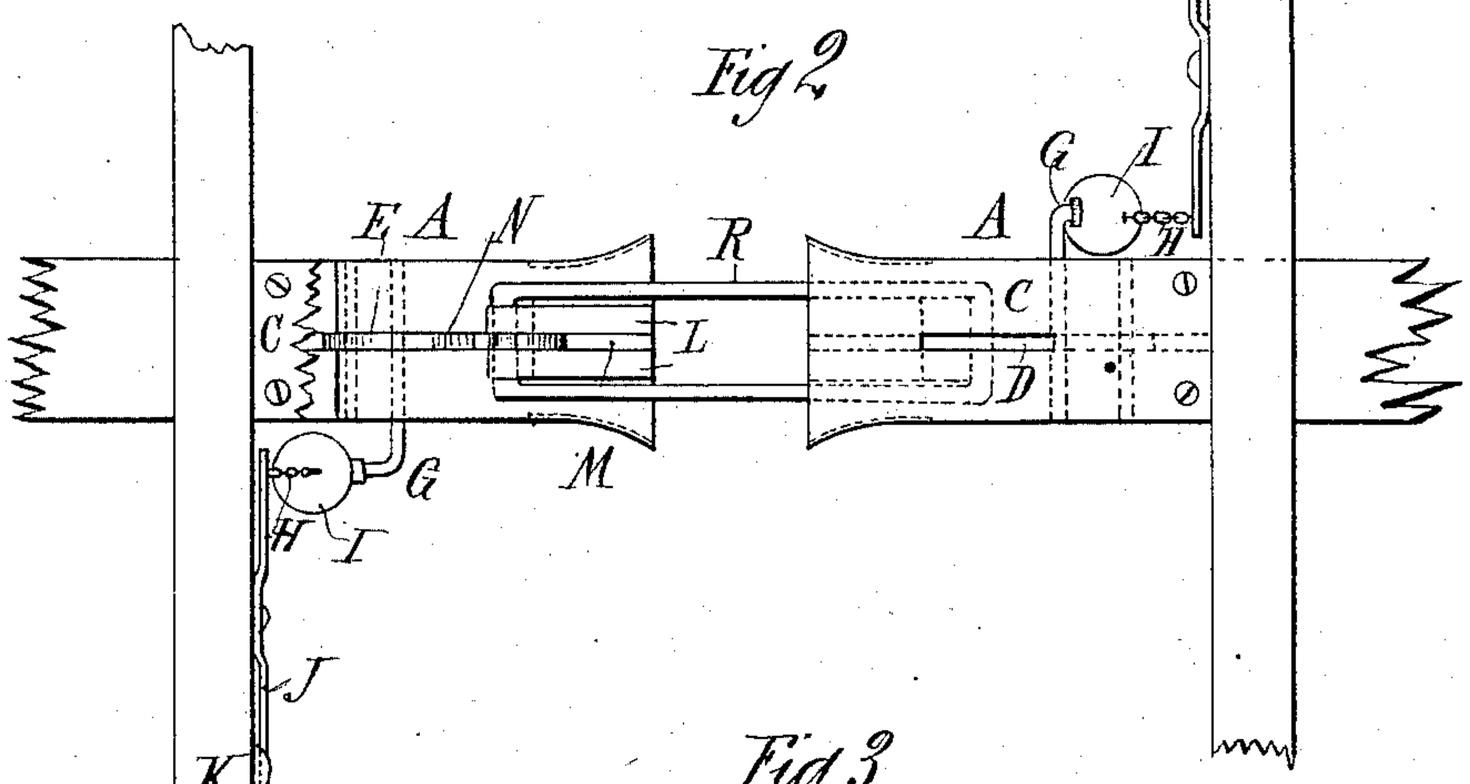
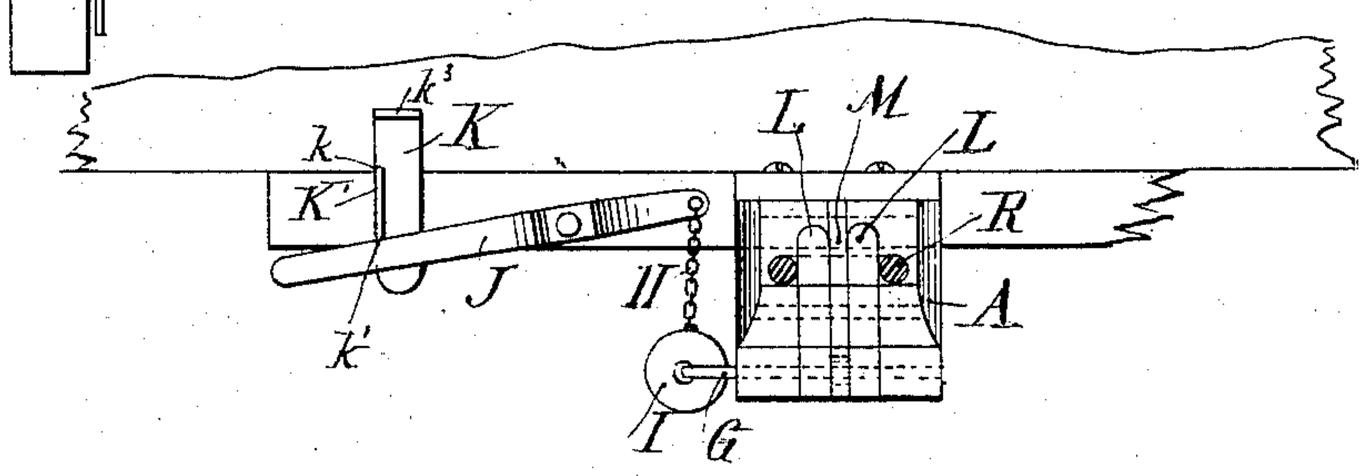


Fig 3.



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UNITED STATES PATENT OFFICE.

THOMAS T. DEAVENPORT AND JAMES M. DEAVENPORT, OF OKOLONA, MISS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 316,446, dated April 28, 1885.

Application filed September 25, 1884. (No model.)

To all whom it may concern:

Be it known that we, THOMAS T. DEAVENPORT and JAMES M. DEAVENPORT, of Okolona, in the county of Chickasaw and State of Mississippi, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

The invention consists in a draw-head provided at its front with upwardly and inwardly inclined prongs, on which the link catches when the cars are coupled. In a slot in the bottom of the draw-head a link-lifter is pivoted, which can be locked in place by a pawl mounted on a transverse shaft in the draw-head, the shaft having its end bent, and a heavy weight mounted on the said bent end, which weight is connected by a chain with a lever pivoted on the end or top of the car.

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

Figure 1 is a longitudinal view of two of our improved coupling devices, one being coupled and one being in section with the link raised. Fig. 2 is a plan view with one draw-head broken away. Fig. 3 is an end view of a draw-head, the link being in section.

The draw-head A is provided in its top with a recess, B, above which a top plate, C, is formed, the said top plate having a longitudinal central slot, D.

The bottom of the draw-head is provided with a longitudinal slot, E, in which is a pawl, F, which is rigidly mounted on a transverse shaft, G, one end of which projects from the side of the draw-head and is bent in the inverse direction of the pawl F, a weight, I, being mounted on the bent end of the shaft.

A chain, H, has one end secured to a weight, I, and the other end is secured to a lever, J, pivoted on the end of the car and held in position by the flange K′ of a plate, K, the flange K′ forming the shoulders *k k′*, and at the top of the plate is a stop, k^3.

From the bottom of the outer end of the draw-head two prongs, L, are inclined upward and inward, and project some distance above the bottom of the opening in the draw-head.

Between the prongs L a slot, M, is formed, in which the end of the link-lifter N, pivoted in the slot E, can swing, the said link-lifter consisting of a flat bar having a notch, *m*, in the bottom edge, near the middle, and a notch, P, in the upper edge, near the front end, which link-lifter also has a notch, W, in its bottom edge, near the free end.

The operation is as follows: When a car is to be coupled, the outer end of the lever J of the draw-head that is to receive the link R is pressed down and passed under the shoulder *k′*, and thus locked in place. Thereby the weight J is raised, and the pawl F is swung down into the slot E, as shown on the left-hand side of Fig. 1 in dotted lines. The entering link slides up the prongs L and over their upper ends and drops, and the link thus catches on the prongs.

To uncouple, the free end of the lever J is raised, thus permitting the weight I to swing down, whereby the pawl F is swung up and swings the link-lifter N, which raises the link to the upper rounded ends of the prongs L, thus permitting of withdrawing the link. The end of the pawl F catches in the notch *m*, thus holding the link-lifter raised, and also preventing its being forced down by links, &c. While the link-lifter remains raised in that position the cars cannot be coupled, as the link cannot catch on the prongs, between which the raised link-lifter is held.

To hold the link in one draw-head ready for coupling, the cross-piece of the link is placed below the link-lifter N, and then the link-lifter is lowered so that the cross-piece of the link will be in the notch W of the said link-lifter, as is shown in dotted lines in Fig. 1. The sides of the draw-head are inclined inward from the outer toward the inner end of the opening, for the purpose of guiding the link to the upper ends of the prongs, and also to permit automatic coupling on curves.

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

1. In a car-coupling, the combination, with a link-elevator, N, having a notch, *m*, in its bottom edge, of the pawl F, adapted to pass into the notch *m* and lock the link-lifter in the raised position, substantially as herein shown and described.

2. In a car-coupling, the combination, with the link-lifter N, of the shaft G, the pawl F, and the weight I on the bent end of the shaft, substantially as herein shown and described.

3. In a car-coupling, the combination, with the link-lifter N, of the shaft G, the pawl F, the weight I on the bent end of the shaft, the chain H, and the lever J, substantially as herein shown and described.

4. In a car-coupling, the combination, with the link-lifter N, of the shaft G, the pawl F, the weight I, the chain H, the lever J, and devices for locking the lever at the desired elevation, substantially as herein shown and described.

5. In a car-coupling, the combination, with the link-lifter N, of the shaft G, the pawl F, the weight I, the chain H, the lever J, and the plate K, having the flange K′, substantially as herein shown and described.

6. The combination, with the draw-head A, of the inclined prongs L and the pivoted link-lifter N, having notches *m* and W in its bottom edge, and a notch, P, in its upper edge at the free end, substantially as herein shown and described.

7. The combination, with the draw-head A, having the sides of its opening inclined inward toward the inner end of the opening, of the downwardly and inwardly projecting prongs in the end of the draw-head at the bottom, and the pivoted swinging link-lifter N, substantially as herein shown and described.

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