

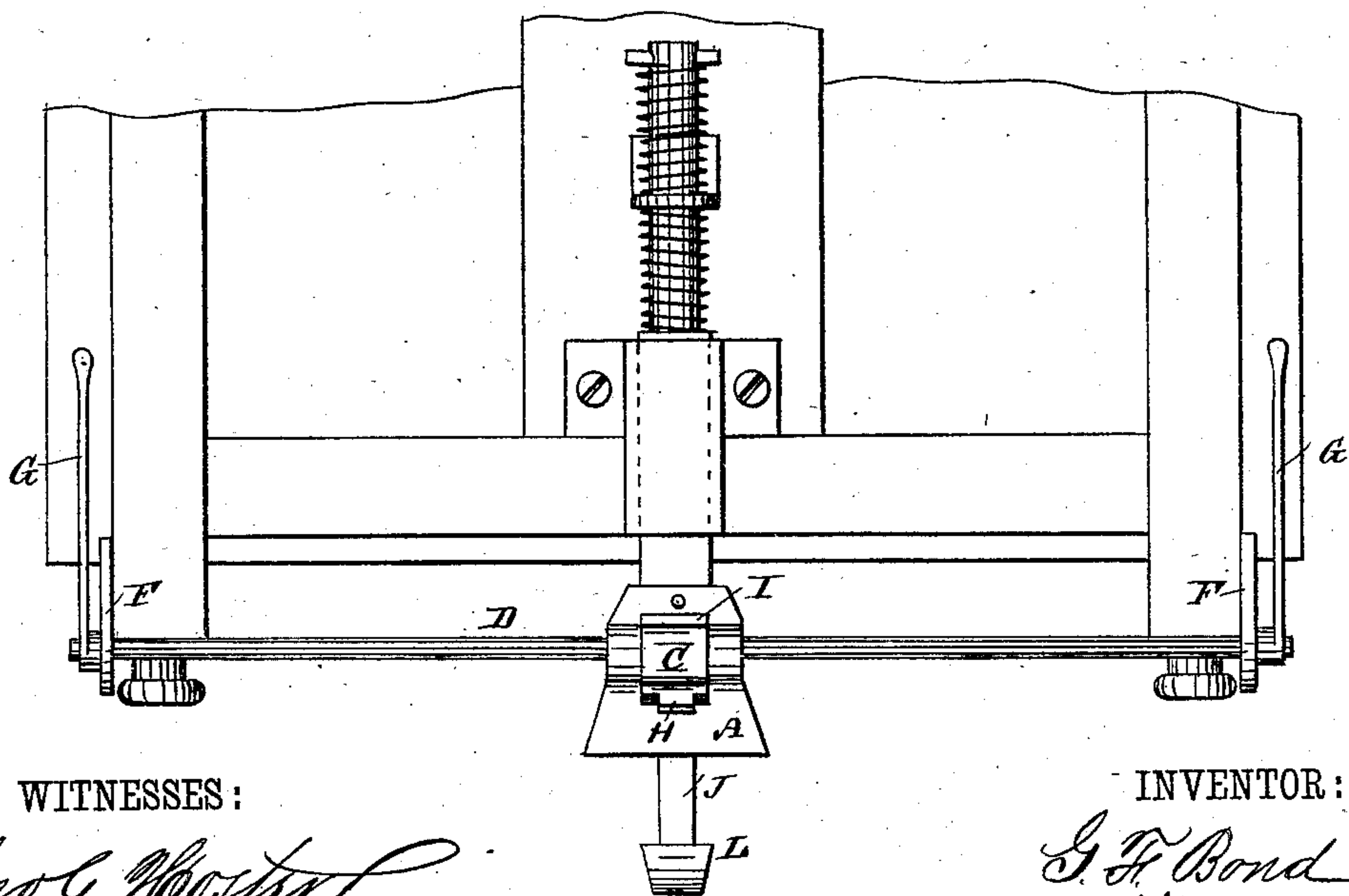
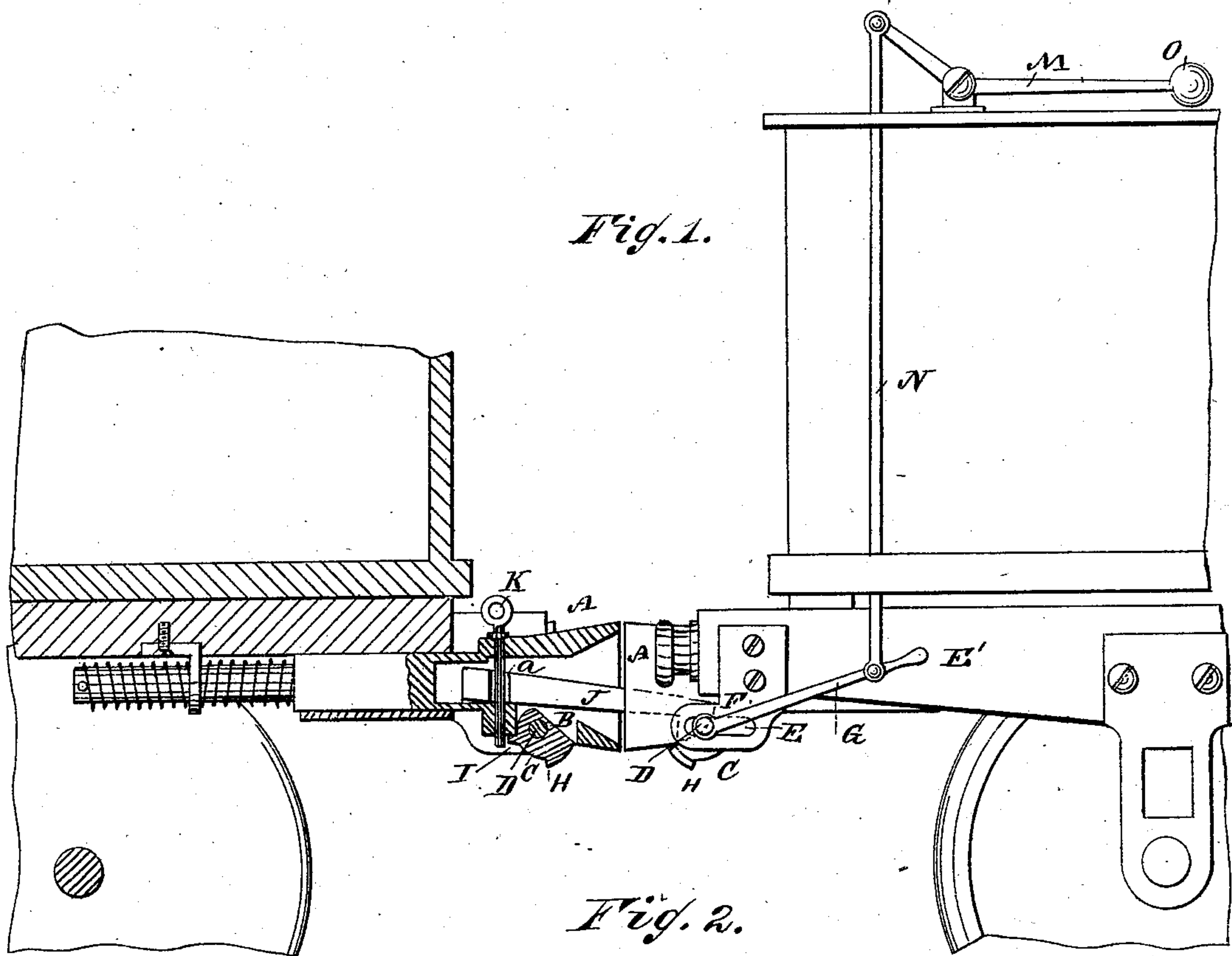
(No Model.)

G. F. BOND.

CAR COUPLING.

No. 255,242.

Patented Mar. 21, 1882.



**WITNESSES:**

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# UNITED STATES PATENT OFFICE.

GEORGE F. BOND, OF TROY, NEW YORK.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 255,242, dated March 21, 1882.

Application filed January 23, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE F. BOND, of Troy, in the county of Rensselaer and State of New York, 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 in its bottom with an aperture containing a swinging cam-block mounted on a transverse shaft extending through slotted guide-plates attached to the longitudinal beams of the car-frame, and provided with handle-levers at the ends for lowering or raising the cam-block to open the aperture to receive the hooked end of the coupling-bar or to close the aperture and raise the hooked end of the coupling-bar out of the aperture, and thus disengage the coupling-bar from the draw-head.

The invention further consists in a lever pivoted on the top of a car and connected with one of the end handle-levers of the shaft for operating the cam-block from the top of the car.

The invention also consists in guide-plates on the sides of the car for guiding the operating-shaft, and in parts and details of construction, as will be fully described hereinafter.

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 both the figures.

Figure 1 is a longitudinal elevation of the end parts of two cars provided with my improved car-coupling, parts being shown in longitudinal section. Fig. 2 is a plan view of the under side of the end of a car provided with my improved car-coupling.

The draw-head A is provided in its bottom with an aperture, B, containing a swinging cam-block, C, rigidly mounted on a transverse shaft, D, extending through horizontal slots E in the guide-plates F, attached to the ends of the longitudinal beams E' of the car-frame. The shaft D is provided at each end with a handle-lever, G, by means of which the shaft D can be rotated. The cam-block C is adapted to swing from the draw-head downward and toward the end of the car. The cam-block C is provided at its rear end and on the bottom with a projecting check, lug, or transverse ridge, I, which strikes against the bottom of the draw-head

when the block C is swung downward as far as possible.

At the outer end the block C is provided with a curved ridge, H, extending from the top to the bottom, which ridge fits into a corresponding groove in the front end of the aperture B of the draw-head. The coupling-bar J is provided at its inner end with an aperture, a, through which the coupling-pin K passes for holding the coupling-bar in the draw-head. The pin K passes through the draw-head behind the cam-block C.

The coupling-bar J is provided at its outer end with a downwardly-projecting beveled head or lug, L, forming a hook at this outer end of the coupling-bar. If the car-coupling is attached to a cattle or box car, an angular lever, M, is pivoted on the top of the car, and the outer end of this lever is connected by means of a pivoted connecting-bar, N, with the lever G. The inner end of the lever M is provided with a weight, O, to keep the inner end of the lever M lowered and the end of the handle G raised. The shaft D can thus be operated from the top or from the sides of the car. The shaft D moves toward the end of the car with the draw-head A when the same is pressed toward the end of the car when the cars are coupled. To permit of this movement of the shaft D the plates F are provided with slots E.

The operation is as follows: If the cars are to be coupled, the coupling-bar J is held in one of the draw-heads to project from the same. The lever G of the shaft D of the opposite draw-head is turned upward, so that the cam-block will be projected downward and toward the outer end of the draw-head, whereby the aperture B will be opened. When the cars come together the beveled head or lug L slides up the bottom of the opposite draw-head and drops down behind the front end of the aperture B. The projecting head or lug L catches on the front end of the aperture B, and will draw the car. The cars are thus coupled automatically. If the cars are to be uncoupled, the end of the lever G is turned downward, whereby the cam-block will be raised into the aperture B, thereby raising the end projection or lug, L, out of the aperture B, and the coupling-bar will thus be disengaged from the draw-head. The cars can also be coupled by means of the ordinary



coupling link and pins K. The transverse check-ridge I prevents the cam-block from being lowered too far.

Having thus described my invention, I claim  
5 as new and desire to secure by Letters Patent—

1. In a car-coupling, the combination, with the draw-head A, provided with an aperture, B, in the bottom, of the cam-block C in this aperture, this cam-block being mounted on a  
10 transverse shaft, D, extending to the sides of the car, and provided with handles G at the ends, and of guide-plates F, provided with guide-slots E for the shaft D, substantially as herein shown and described, and for the pur-  
15 pose set forth.

2. In a car-coupling, the combination, with the draw-head A, provided with an aperture, B, in the bottom, of the swinging cam-block C in this aperture, the shaft D, the handles G,  
20 the connecting-bar N, and the angular lever M, pivoted on the top of the car, substantially as

herein shown and described, and for the purpose set forth.

3. In a car-coupling, the combination, with the draw-head A, provided with an aperture, 25 B, in the bottom, of the swinging cam-block C, provided at the inner end with a transverse check-ridge, I, substantially as herein shown and described, and for the purpose set forth.

4. In a car-coupling, the combination, with 30 the draw-head A, provided with an aperture, B, in the bottom, of the swinging cam-block C, provided on the inner end with a transverse check-ridge, I, and at the outer end with a guide-ridge, H, extending from top to bottom, 35 substantially as herein shown and described, and for the purpose set forth.

GEORGE F. BOND.

Witnesses:

JAMES A. EDDY,

DAVID M. RANKEN.