

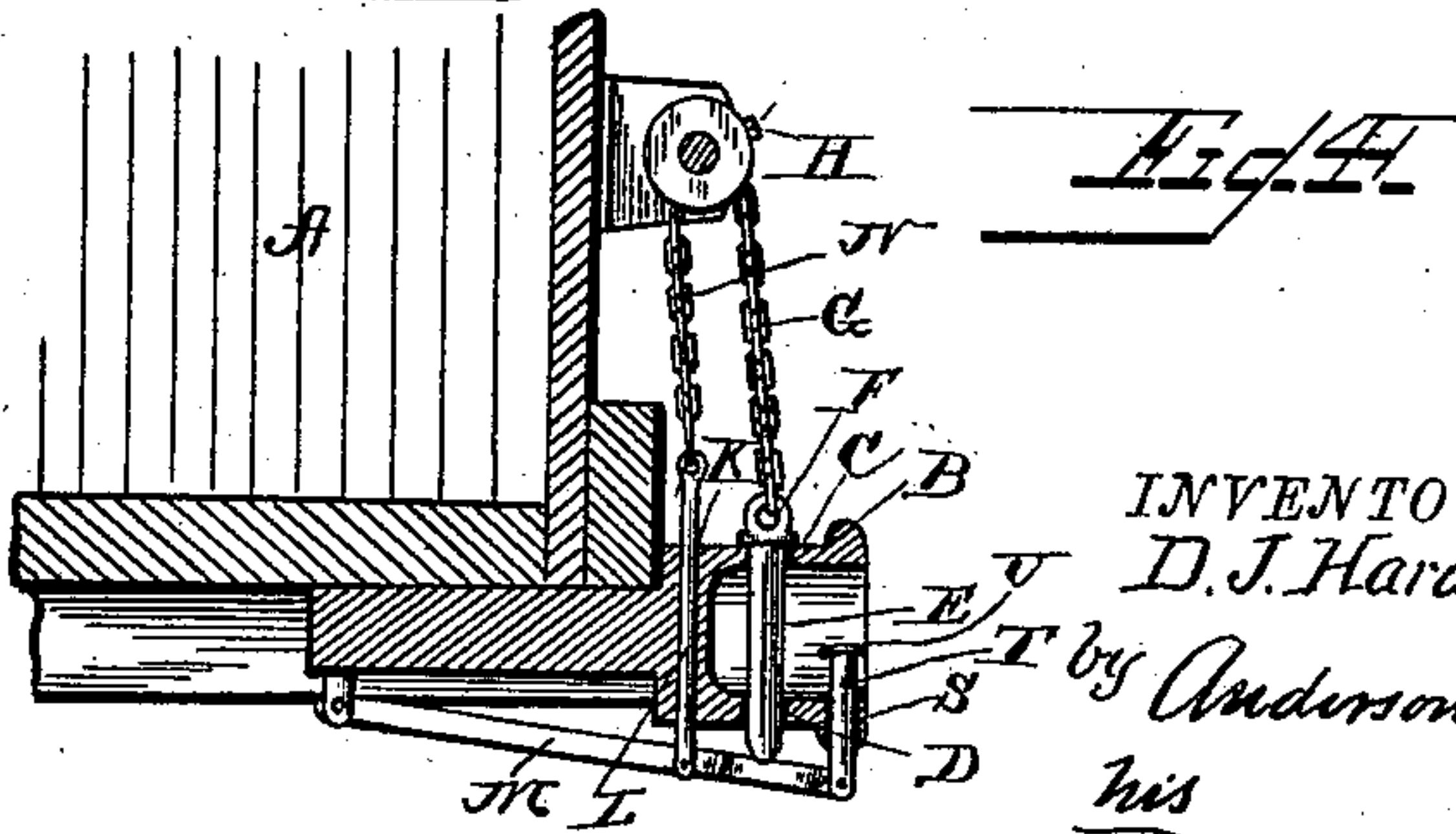
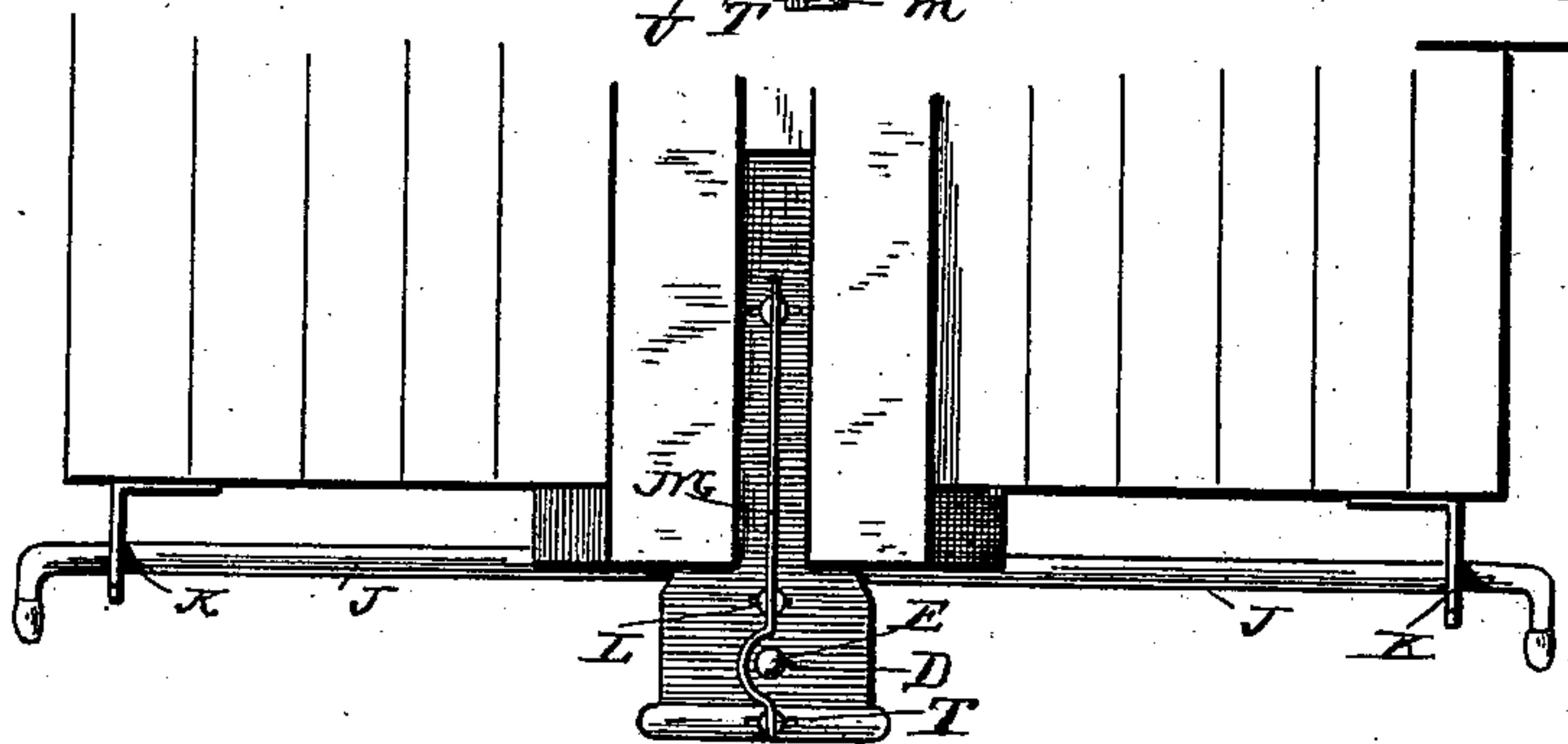
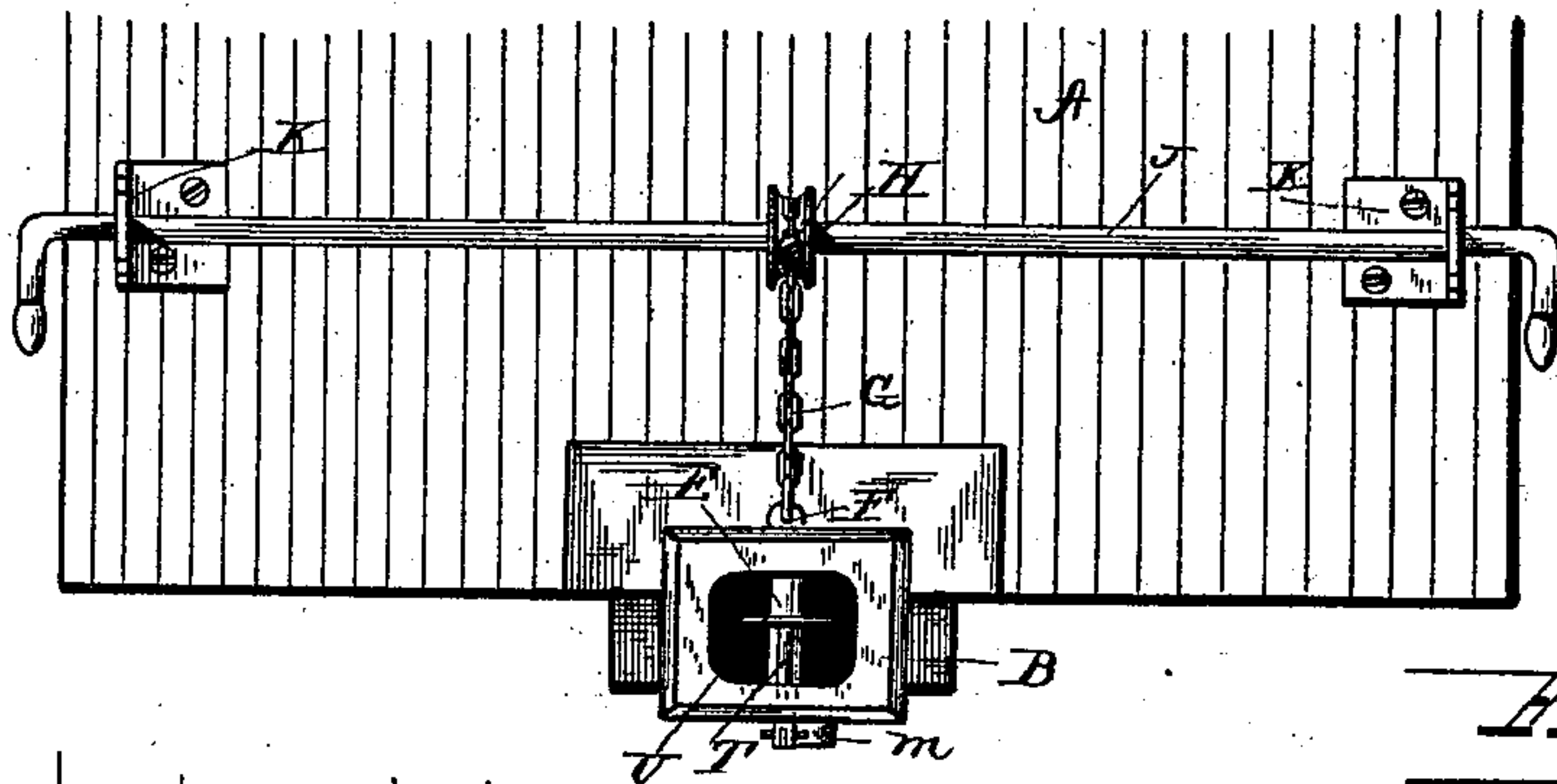
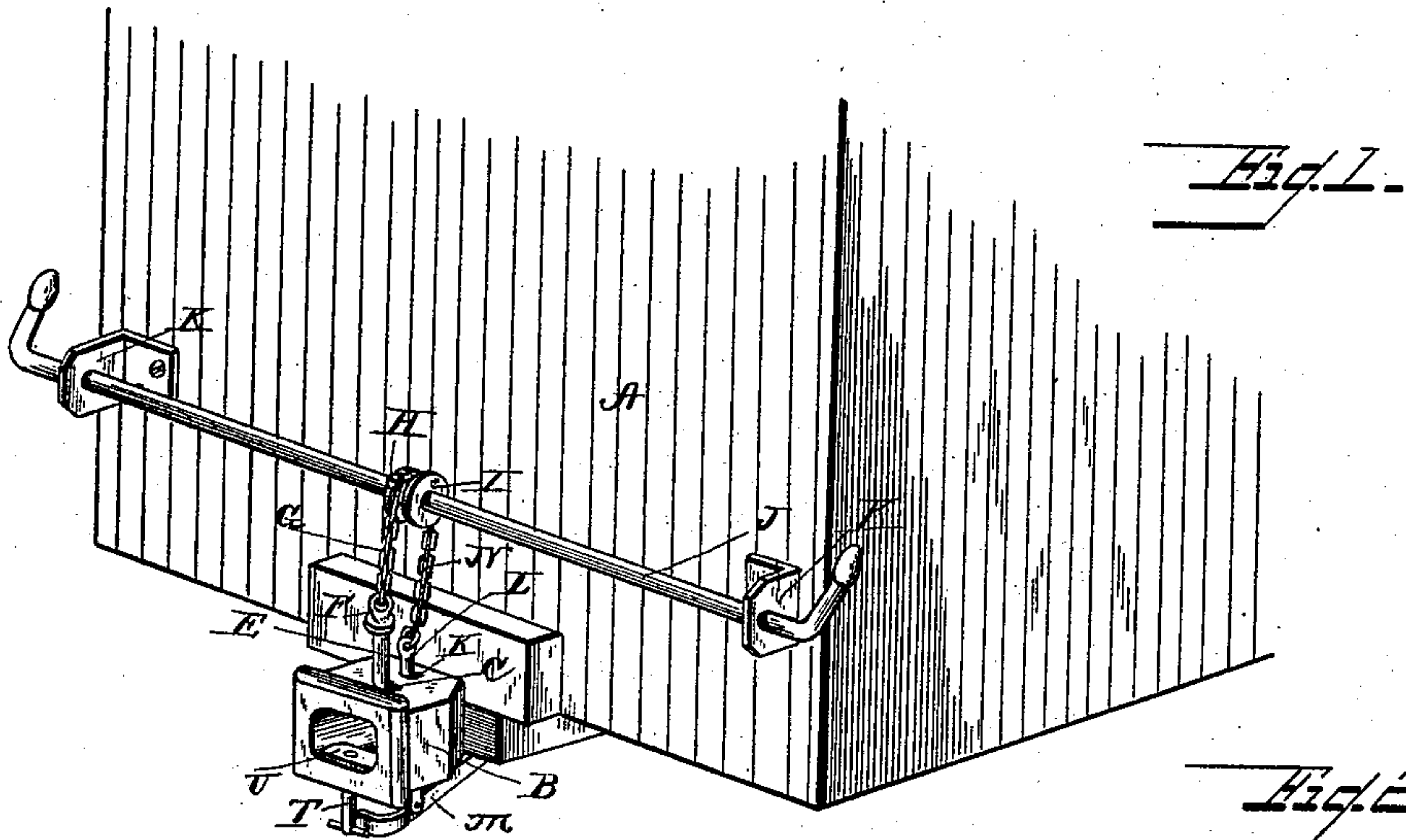
(No Model.)

D. J. HARDING.

CAR COUPLING.

No. 364,104.

Patented May 31, 1887.



WITNESSES

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UNITED STATES PATENT OFFICE.

DANIEL JOSEPH HARDING, OF LOUISVILLE, KENTUCKY, ASSIGNOR OF
THREE-FOURTHS TO JOHN STRANGE CAIN, ROY McDONALD, AND
PAUL CAIN, ALL OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 364,104, dated May 31, 1887.

Application filed February 15, 1887. Serial No. 227,685. (No model.)

To all whom it may concern:

Be it known that I, DANIEL JOSEPH HARDING, a citizen of the United States, resident of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Car-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of my improved car-coupling applied. Fig. 2 is a front view of the same. Fig. 3 is a bottom view. Fig. 4 is a longitudinal vertical sectional view.

My invention relates to car-couplings; and it consists in the construction and novel combination of parts as hereinafter set forth.

Referring by letter to the accompanying drawings, A designates a box-car, the trucks and body being of the well-known constructions now commonly used on railroads in the United States.

B designates one of the draw-heads, which is provided with aligned pin-holes C D in its upper and lower walls, respectively, for the reception of the ordinary coupling-pin E, which latter is provided with an eye, F, in its head, and is connected by a chain, G, to a pin, H, on the pulley I, fixed to the transverse crank-rod J, supported in bearings K K, projecting from the end of the car-body at a proper and convenient height from the ground.

In rear of the pin-holes C D, and preferably back of the rear wall of the mouth of the draw-head, I provide a pin-hole, K, which passes vertically entirely through the draw-head.

Passing vertically down through the pin-hole K is a headed lifting-rod, L, the lower end of which rod L is split or recessed to fit over the lifting-lever M, near the front end of the latter. The head of the lifting-rod L is connected by a chain, N, which passes up along the rear of the pulley I, and has its upper end secured to the front of the pulley I by the same pin H that secures the chain Q (which

may be a continuation of the chain N) to the pulley I. The lower end of the chain Q is connected to an eye in the head of the coupling-pin R. In the lower wall of the draw-head, near the front edge of the said lower wall, I provide a pin-hole, S, through which the stem T of the lifter-plate U in the mouth of the draw-head passes. The stem T is passed down through pin-hole S, and its lower end is connected to the front end of the lifting-lever M, the rear end of said lifting-lever M being fulcrumed or hinged between bearings on the lower face of the draw-bar V, which is supported in the usual manner between the timbers under the car-body.

The crank-arms at the ends of the crank-rod J depend normally—that is, when the coupling-pin is in its seat said arms project downwardly.

By turning either of the cranks of the rod J upwardly and toward the front, or in the direction away from the end of the car-body, the coupling-pin R will be lifted or raised in its seat to permit the introduction or withdrawal of the coupling-link. When the coupling-link is in place and it is desired to couple with another car on which the draw-head is higher than the one in which the link is held, by turning the depending crank backward or toward the body of the car the lifter-plate U will be raised in the mouth of the draw-head and will carry the link up with it, so that the projecting end of the link may readily enter the mouth of the opposing draw-head.

The lifter-plate, when down or lowered, rests in a recess or depression in the lower wall of the draw-head, so that it cannot be struck by a link when entering the mouth of the draw-head.

In applying the improvement to draw-heads already constructed it is only necessary to provide the additional pin-holes herein used in front and rear of the ordinary coupling-pin holes.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination, with the draw-bar and the draw-head provided with the coupling-pin

hole, the aligned pin-holes in rear thereof, and the pin-hole in the lower wall near the mouth of the draw-head, of the lifting-lever, the lifter-plate connected by its stem to the lifting-lever, 5 the coupling-pin, the lifting-rod, the crank-rod provided with the pulley, and the chains connecting the coupling-pin and lifting-rod to said pulley, substantially as specified.

2. A draw-head having a longitudinal lift-
10 ing-lever slotted at its rear end and pivoted to the rear of said draw-head, carrying at its front

end a pivoted vertical lifter-stem extending through an aperture in the front of the draw-head-floor, and having middle connection with the transverse operating crank-rod, substan- 15 tially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL JOSEPH HARDING.

Witnesses:

WM. E. KEYES,
T. W. SPINDLE.