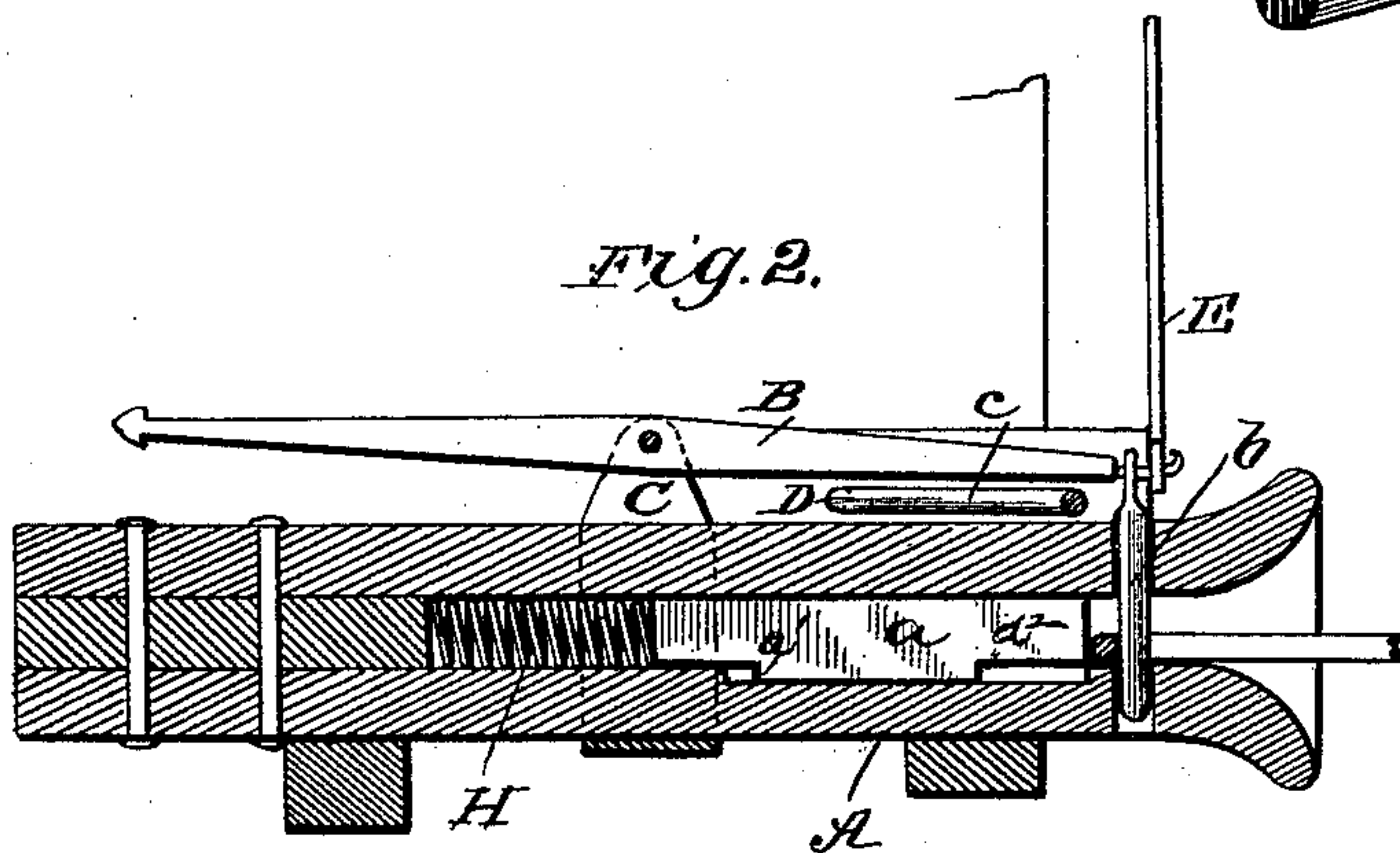
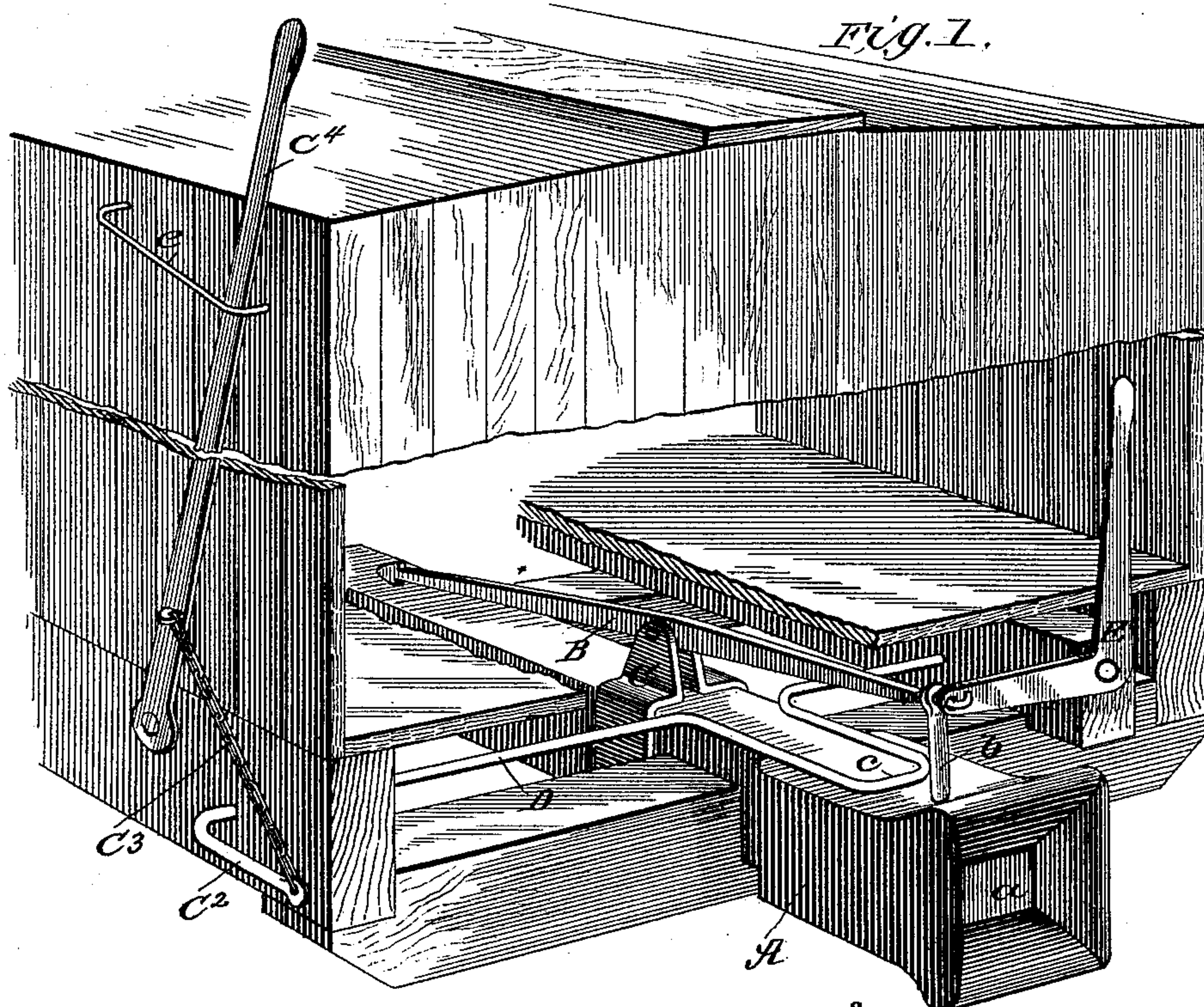


(No Model.)

B. ROWELL.
CAR COUPLING.

No. 420,700.

Patented Feb. 4, 1890.



WITNESSES:
Fred G. Dieterich
Edw. W. Byrnes

INVENTOR:
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UNITED STATES PATENT OFFICE.

BENNING ROWELL, OF LAFAYETTE, CHIPPEWA COUNTY, ASSIGNOR OF ONE-HALF TO GUSTAVE J. LANGE, OF CHIPPEWA FALLS, WISCONSIN.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 420,700, dated February 4, 1890.

Application filed December 7, 1889. Serial No. 332,948. (No model.)

To all whom it may concern:

Be it known that I, BENNING ROWELL, a citizen of the United States, residing in Lafayette, in the county of Chippewa and State of Wisconsin, have invented certain new and useful Improvements in Car-Couplings, of which the following is a specification.

The object of my invention is to provide a simple and practical car-coupling which shall enable the cars to be coupled or uncoupled easily and quickly without the necessity of going between the cars.

It consists in the peculiar construction and arrangement of parts, which I will first fully describe with reference to the drawings, and then point out in the claims.

Figure 1 is a perspective view of the coupling applied to a car, and Fig. 2 is a vertical longitudinal section of the draw-bar.

In the drawings, A represents the draw-bar of the car, which is provided with a spring-seated slide-block *a* in its throat and a coupling-pin *b*. Block *a* has on its under side shoulders *a'* *a''*, which prevent the block from mashing the spring H, and also prevent the block from coming out. This coupling-pin is connected at its upper end to the forward end of a lever B, which is arranged longitudinally above the draw-bar and is fulcrumed at or near its middle to a metal strap C, surrounding the draw-bar.

D is a transverse rock-shaft journaled in bearings in the end of the car and having its middle portion bent into a loop or double crank *c*, which rests beneath the lever B just back of the coupling-pin. The end of the rock-shaft outside the car terminates in a crank-arm C², which is connected by a chain C³ with a lever C⁴, pivoted at its lower end to the side of the car and extending vertically to the top of a box-car, and guided in its movement by a strap or keeper *l*. To the front end of lever B there is also attached the lower horizontal arm of an elbow-lever E, fulcrumed to the end of the car, so as to work in a plane parallel with the end of the car.

The operation of my improved car-coup-

ling is as follows: In setting the coupling the pin is raised from either side or the top of the car until the sliding spring-seated block in the draw-bar moves forward and rests beneath the pin. This pin is raised from one side of the car by the elbow-lever E, from the other side of the car by the arm of the rock-shaft, and from the top of the car by the lever C⁴, which latter, operating through the chain C³ on the rock-shaft, turns the latter, and by raising its middle cranked portion *c* lifts the lever B, and with it the pin. Now when the link of another car enters the draw-bar it forces back the sliding block and the pin drops through and couples the link. To uncouple the cars, the pin is raised in a similar manner, and the sliding block moves forward beneath the pin and throws out the link, thus securing the automatic coupling or uncoupling of the car in a simple, practical, and safe manner without trouble or danger to the train-hands.

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

1. The combination, with the draw-bar and its coupling-pin, of a lever B, fulcrumed longitudinally above the draw-bar and connected to its coupling-pin, a rock-shaft C, with bent portion *c* arranged transversely to the car, with its middle crank portion resting beneath the outer end of lever B, and having a crank-arm at its outer end for working it, substantially as shown and described.

2. The combination, with the draw-bar having a spring-seated slide in its throat and a coupling-pin in its outer end, of the lever B, arranged longitudinally above the draw-bar and having its forward end connected to the pin, the transverse rock-shaft C, with crank portion *c* resting beneath the lever B, and an arm on its outer end, a chain connected to said arm, and a vertical lever connected to the chain and extending to the top of the car, substantially as shown and described.

3. The combination of the draw-bar having a spring-seated slide in its throat and a coupling-pin in its outer end, the lever B,

fulcrumed longitudinally above the draw-bar
and connected to the coupling-pin, the elbow-
lever E, fulcrumed to the end of the car to
work parallel with said end and connected
5 to the lever B, the transverse rock-shaft C,
having the crank portion *c* beneath lever B,
and an arm at its end, a chain connected to

said arm, and a lever connected to the chain
and extending to the top of the car, substan-
tially as shown and described.

BENNING ROWELL.

Witnesses:

JOS. F. CUDDY,
H. P. MARVINS.