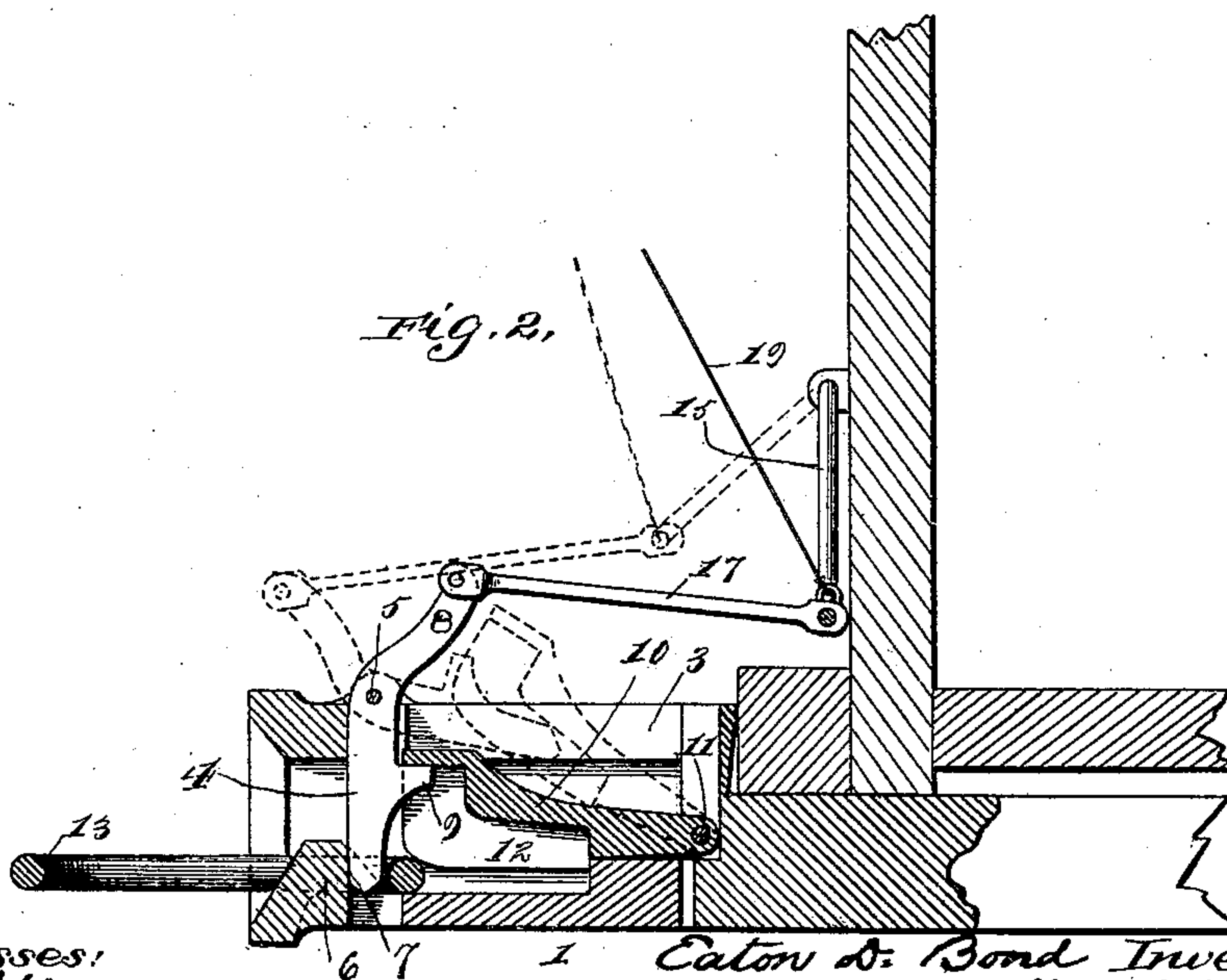
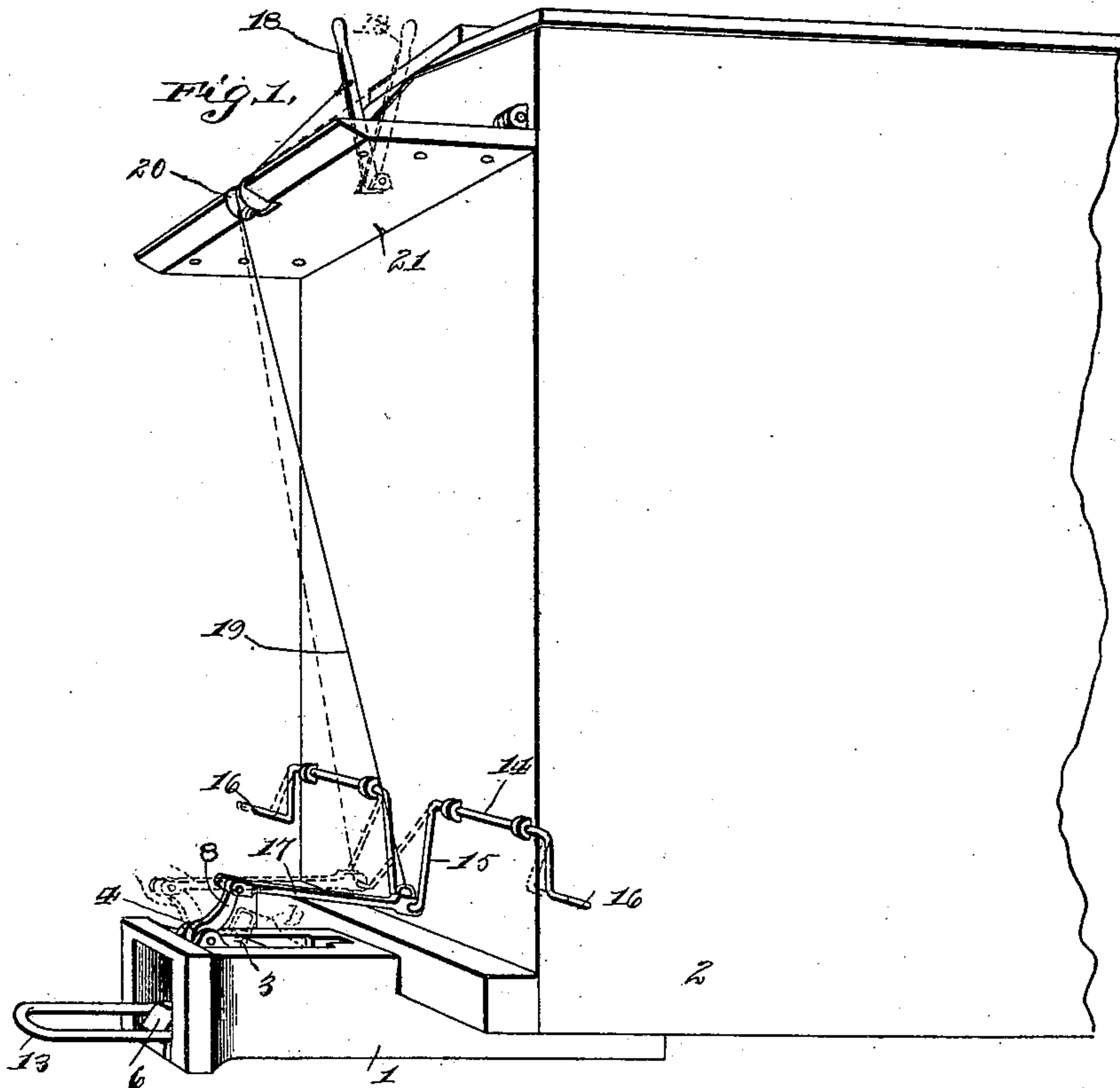


(No Model.)

E. D. BOND.
CAR COUPLING.

No. 507,102.

Patented Oct. 24, 1893.



Witnesses:
A. C. Spalding
R. S. Thomson

Eaton D. Bond Inventor:
By H. D. Flippin atty

UNITED STATES PATENT OFFICE.

EATON D. BOND, OF MERCER, TENNESSEE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 507,102, dated October 24, 1893.

Application filed May 13, 1892. Serial No. 432,927. (No model.)

To all whom it may concern:

Be it known that I, EATON D. BOND, of Mercer, in the county of Madison and State of Tennessee, have invented a new and Improved Car-Coupling, of which the following is a specification.

The invention relates to improvements in car couplings.

The object of the present invention is to improve the construction of car couplings, to provide one which will be automatic in its operation, and to prevent a train hand passing over the tops of cars accidentally falling between them.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

In the drawings—Figure 1 is a perspective view of a car coupling embodying the invention and shown applied to a car. Fig. 2 is a vertical longitudinal sectional view.

Like numerals of reference indicate corresponding parts in both the figures of the drawings.

1 designates a draw-head mounted on a car 2 and provided in its top with a longitudinal opening 3, which communicates with the link cavity or opening and in which is pivoted a swinging coupling pin 4, arranged at the front end of the opening and pivoted at 5 to the draw-head. The mouth of the draw-head is beveled, and on the bottom thereof is arranged a fixed oppositely beveled lug 6, which is provided at its back with a vertical groove 7, adapted for the reception of the lower end of the swinging coupling pin, whereby the lug is adapted to support the coupling pin when the latter is in a vertical position.

The coupling pin 4 is provided at the top with an upwardly and rearwardly extending arm 8, and it is provided below the pivot 5 at its back with a shoulder 9, which is engaged by a weighted catch 10 arranged in rear of the coupling pin and pivoted by a transverse pin 11 at the back of the draw-head. The pivoted weighted catch is provided at its front end with a recess 12 to provide a way for the pin 4, in order to permit the latter to move inward.

The car coupling is adapted for automatic operation and a link entering the draw-head will force the swinging pin rearward and upward sufficiently to pass the same, after which the coupling pin will drop back to its normal position.

The swinging pin is operated from each side of the car 2 by a rock shaft 14, having a central crank loop 15 and terminating in its ends in handles 16. The crank loop is connected by a rod 17 with the arm of the coupling pin, and by turning the rock-shaft the lower portion of the coupling pin is swung rearward and upward to release the link.

The operation of uncoupling is performed from the top of a car by a lever 18, which is connected with the crank loop 15 by a rope or cable 19; and the latter passes over a pulley 20 arranged at the outer edge of a platform 21. The platform 21 is arranged a short distance below the top of the car, and is adapted to prevent a person passing over the tops of cars and falling between them.

The recess of the pivoted catch permits the lower end of the coupling pin to swing upward; and the lower edges of the sides of the catch are adapted to bear against the inner end of the link to hold the latter in proper position to enter the mouth of another draw-head for coupling.

What I claim is—

1. In a car coupling, the combination of a draw-head provided in its top with an opening, a swinging coupling pin mounted in the draw-head and pivoted intermediate of its ends and projecting above the draw-head and provided below the pivotal point with a horizontal supporting shoulder, a weighted catch pivoted at its rear end and provided at its front end with a recess and resting upon the horizontal supporting shoulder, and means connected with the upper end of the coupling pin for swinging the latter, substantially as described.

2. In a car coupling, the combination of a car, a draw-head provided in its top with an opening, a swinging coupling pin mounted in the draw-head and provided at its top with an upwardly and inwardly extending arm, a catch pivotally mounted in the draw-head and arranged in rear of the coupling pin, a

rock-shaft arranged transversely of the car
and terminating in handles and provided
with an intermediate loop connected with the
arm of the coupling pin, a platform arranged
5 at the top of the car and provided at its outer
end with a pulley, and a rope or cable pass-
ing over the pulley and connected with the

crank loop, and a lever mounted at the top of
the car and connected with the upper end of
the rope or cable, substantially as described. 10
EATON D. BOND.

Witnesses:

W. S. NUCKALL,
P. E. POPE.