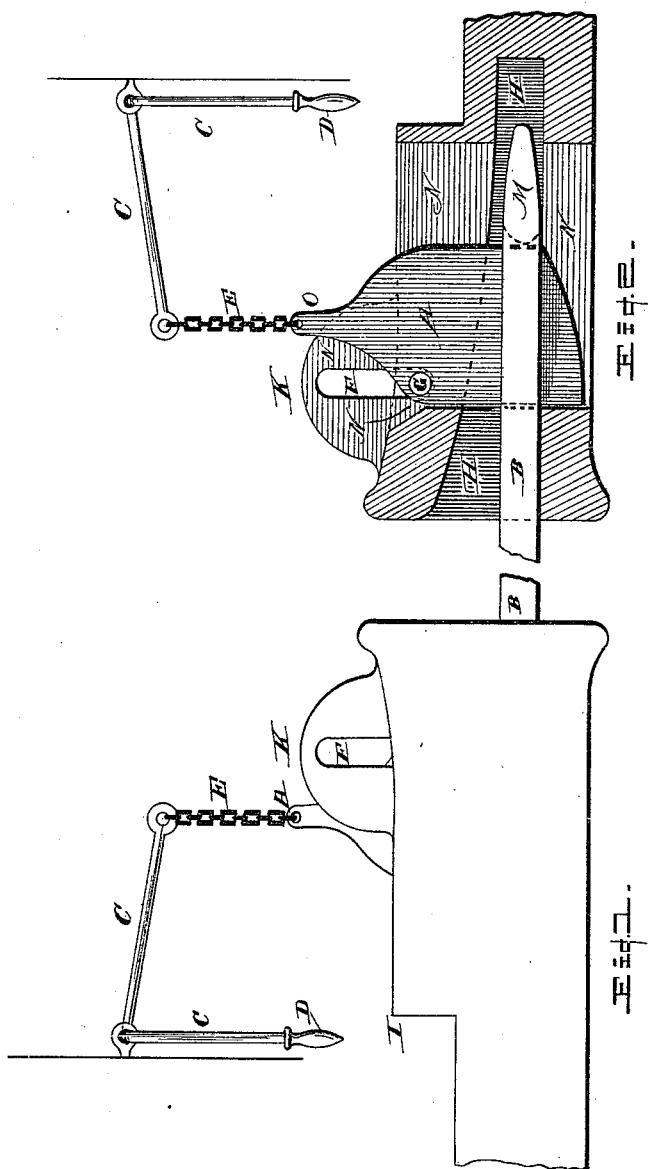


(No Model.)

W. ROYSDON.  
CAR COUPLING.

No. 421,766.

Patented Feb. 18, 1890.



WITNESSES:

P. L. Brooks.  
Arthur E. Dowell.

INVENTOR

William Royson

BY

Geo. & Beardsley  
T. H. Alexander ATTORNEYS

# UNITED STATES PATENT OFFICE.

WILLIAM ROYSDON, OF CHAMPAIGN, ILLINOIS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 421,766, dated February 18, 1890.

Application filed June 13, 1889. Serial No. 314,171. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM ROYSDON, of the city of Champaign, in the county of Champaign and State of Illinois, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The present invention is an improvement in car-coupling devices of the swinging-pin class; and it consists in the novel construction and combination of parts hereinafter described and claimed.

Referring to the drawings by figures and letters, Figure 1 represents a side view of a draw-head having my improvements; and Fig. 2 is a vertical sectional view taken longitudinally and centrally through the same, also showing the uncoupling devices.

The draw-bars are of general ordinary form known as "freight draw-bars," having the usual link-recess H and an enlarged head I, from the rear end of which extends a reduced portion constructed as usual for attaching the draw-bar to the car. The head of the draw-bar is vertically and longitudinally slotted, as at N N, for the reception and play of the locking-tumbler A, and near the mouth of the head and on each side of slot N rise similar opposite vertical ears K, preferably cast integral with the draw-bar head, and between which the tumbler A can play freely. These ears K are slotted, as at F, the slots being vertical to the link-recess H and at right angles to slot N, and extending below the upper or top surface of the draw-bar head, stopping or ending just above the top of recess H, as shown, and being near the front end or mouth of the draw-bar. The tumbler H is roughly pear-shaped when viewed sidewise, but is narrow in width to move easily in slot N. The tumbler has formed on it or secured thereto lugs G on its opposite sides and near its front edge, which lugs project into and engage the slots F of ears K, as shown, thereby suspending the tumbler in the slot N, but permitting it to be swung back and forth therein or to be raised vertically, as is evident. The front edge of the tumbler A is straight, and when

the tumbler is lowermost it depends through recess H and its lowermost front corner impinges against the bottom of the draw-bar in the portion of slot N therein, as shown, so that the tumbler cannot be rocked forward. The bottom edge of the tumbler, however, curves backward and upward from this front lower corner, as shown, so that when the tumbler is rocked on its pivots or lugs G it will not bind in slot N.

O designates an upstanding extension of tumbler A rising above the draw-bar head and in rear of ears K, and which is connected by a chain or link E with a crank-arm C, extending from a horizontal shaft secured on the end of the car and having handles D on its ends, by which said shaft can be rocked and arm C raised or lowered from either side of the car, and through this means tumbler A can be lifted from slot N until lugs G strike the upper ends of slots F.

B designates the coupling-link, which preferably has its ends M tapering, as shown, to facilitate the entrance thereof into a draw-bar head.

In operation when two cars are run together the link M, coupled to one draw-head, enters the recess H of the draw-head on the other car, and, striking the straight edge of tumbler A, rocks the same backward on its pivot until the head M passes beneath the lower front corner thereof. The tumbler then by its own gravity begins to swing back into its former position, passing partly through the link, and when the link is driven clear into the recess the tumbler A drops into the position shown in Fig. 2, effectually locking the link therein, as shown. As the tumbler rocks backward it can also rise in slot N, and there is no binding thereof in the slot, and, as slots F are vertical, if the tumbler be forced upward its entire weight will be thrown on the end or head M of the link, and the rounding lower rear edge of the tumbler, bearing on the inner edge or face of head M of the link, will direct the tumbler downward to its locking position and also assist in drawing the link B into the recess H of the draw-head should it not be sufficiently projected from the opposite draw-head to permit the tumbler A to freely swing into locking position. When in this position, any draft strain on the tumbler A will cause

its straight edge to bind in the front ends of slots N and prevent the withdrawal of the link, which can be freed by lifting the tumbler, as described.

5 What I therefore claim as new is—

The herein-described car-coupling, consisting of a draw-bar having an ordinary link-recess vertically slotted in its top and bottom, as at N, and having a pair of similar  
10 upstanding ears K at the front end of the slot, said ears being vertically slotted, as at F, and such slots extending below the top of the draw-bar, in combination with the tumbler A, suspended in slot N by means of lugs G G

on its opposite sides and near its front edge, 15 which engage slots F, said tumbler having an upstanding extension O rising above ears K and having its bottom edge inclined, substantially as described, with the link, and the devices for lifting said tumbler, all substantially 20 as and for the purpose described.

In testimony that I claim the foregoing as my own I affix my signature in the presence of two witnesses.

WILLIAM ROYSDON.

Witnesses:

W. E. NOBLE,

M. W. CLARK.