

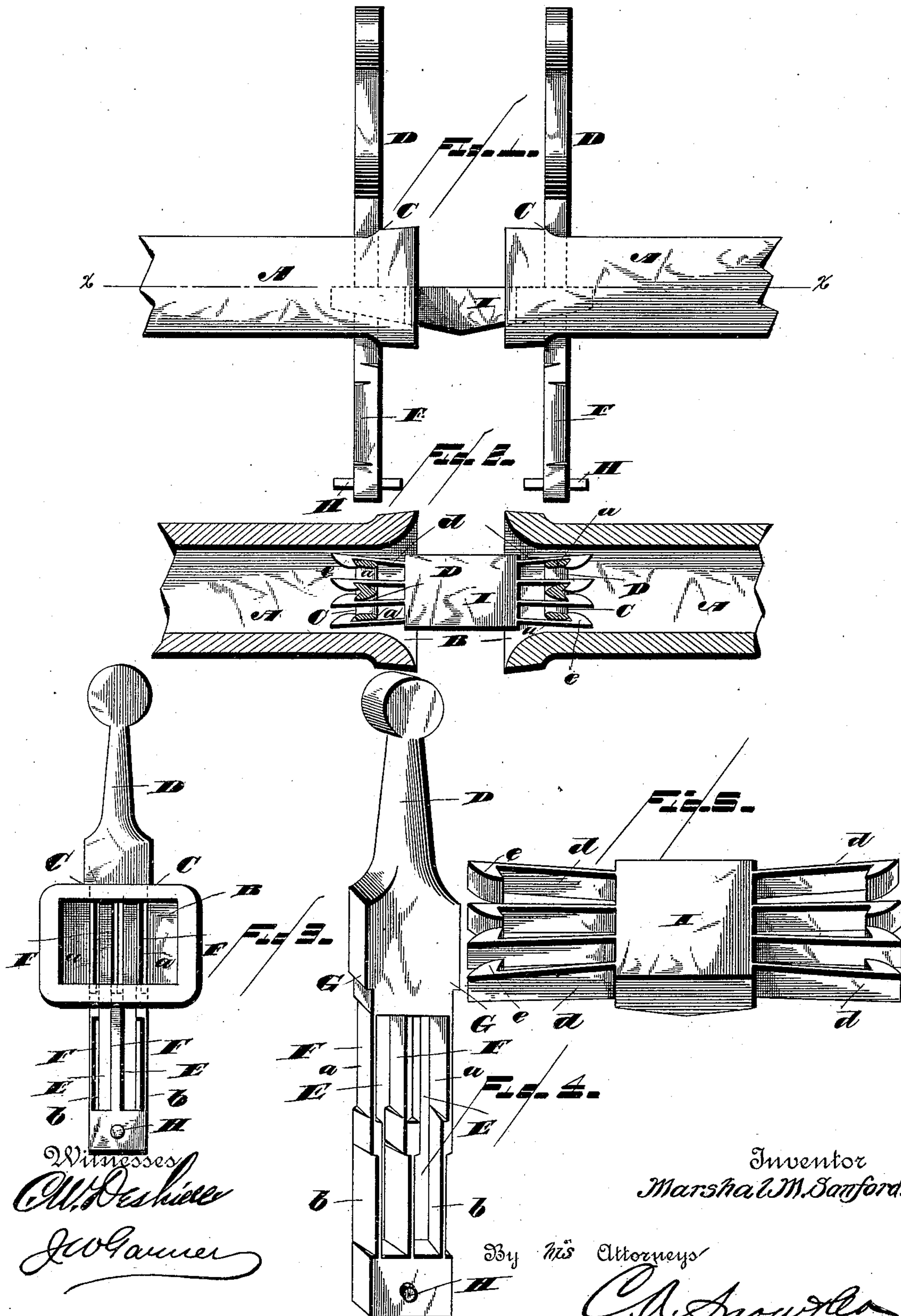
(Model.)

M. M. SANFORD.

## CAR COUPLING.

No. 356,506.

Patented Jan. 25, 1887.





# UNITED STATES PATENT OFFICE.

MARSHAL MILES SANFORD, OF FORKSVILLE, LOUISIANA, ASSIGNOR OF  
TWO-THIRDS TO ROBERT L. BROOKS AND JOHN Y. COVINGTON, BOTH  
OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 356,506, dated January 25, 1887.

Application filed December 10, 1886. Serial No. 221,229. (Model.)

*To all whom it may concern:*

Be it known that I, MARSHAL MILES SANFORD, a citizen of the United States, residing at Forksville, in the county of Ouachita and State of Louisiana, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention relates to an improvement in car-couplings; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a car-coupling embodying my improvements. Fig. 2 is a horizontal sectional view of the same, taken on the line *x x* of Fig. 1. Fig. 3 is a front elevation of one of the draw-heads and the coupling-pin therein. Fig. 4 is a detail perspective view of the coupling-pin. Fig. 5 is a similar view of the coupling-link.

A represents a draw-head, which is of the usual construction, and is provided with the mouth or opening B, to receive the ends of the coupling-link, and with the vertical openings C, intersecting the opening B, and adapted to receive the coupling-pin D. The said coupling-pin and openings C are rectangular, so that the pin cannot turn in the openings. The coupling-pin is provided with parallel vertical slots E, thereby forming parallel vertical bars F between and at the outer sides of the slots. The said bars have their upper portions tapered in transverse section to a point, thereby forming wedge-shaped keys *a*, the points of which are toward the mouth of the draw-head, and the lower portions of the bars are tapered in transverse section in the reverse direction to the keys *a*, thereby forming wedge-shaped keys *b*, the points of which are toward the rear end of the draw-head.

From the sides of the key, just above the slots E, project shoulders G, adapted to bear against the upper side of the draw-head and sustain the coupling-pin in such a position that the keys *a* are opposed to the mouth of the draw-head, and the keys *b* are below the same. A transverse pin, H, extends through the lower end of the coupling-pin, to prevent

the latter from being raised entirely from the draw-head.

I represents the coupling-link, which is provided with longitudinal projecting spring-bars *d*, having heads *e* at their outer ends, that project inwardly and form hooks.

The operation of my invention is as follows: When the coupling-pin is lowered in the draw-head to its normal position, the keys *a* are toward the open end or mouth of the draw-head, and when the coupling-link enters the draw-head the spring-hooks thereof pass between the keys *a* and cause the heads *e* to engage the rear broad sides of the said keys, thereby coupling the cars together. In order to uncouple the cars, the coupling-pin is raised until the keys *b* are opposed to the opening in the draw-head, and as the said keys have the points on their rear sides it will be readily understood that the hooks of the coupling-link, when strain is exerted on the latter, disengage the keys *b*, and the coupling-link is thereby released.

Having thus described my invention, I claim—

1. In a car-coupling, the combination of the draw-head, the vertically-movable pin therein, having the wedge-shaped keys *a* and *b* arranged above each other, and with their points projecting in opposite directions, and the coupling-link having the projecting spring-hooks, substantially as described.

2. In a car-coupling, the combination of the draw-head, the vertically-movable pin therein, having the vertical parallel bars, the said bars having their upper portions wedge-shaped in cross-section to form keys *a*, and having their lower portions wedge-shaped in cross-section to form keys *b*, the points of the said keys *a* and *b* projecting in opposite directions, and the coupling-link having the spring-hooks, for the purpose set forth, substantially as described.

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

MARSHAL MILES SANFORD.

Witnesses:

L. H. MOÏSE,  
AUSTIN GREEN.