

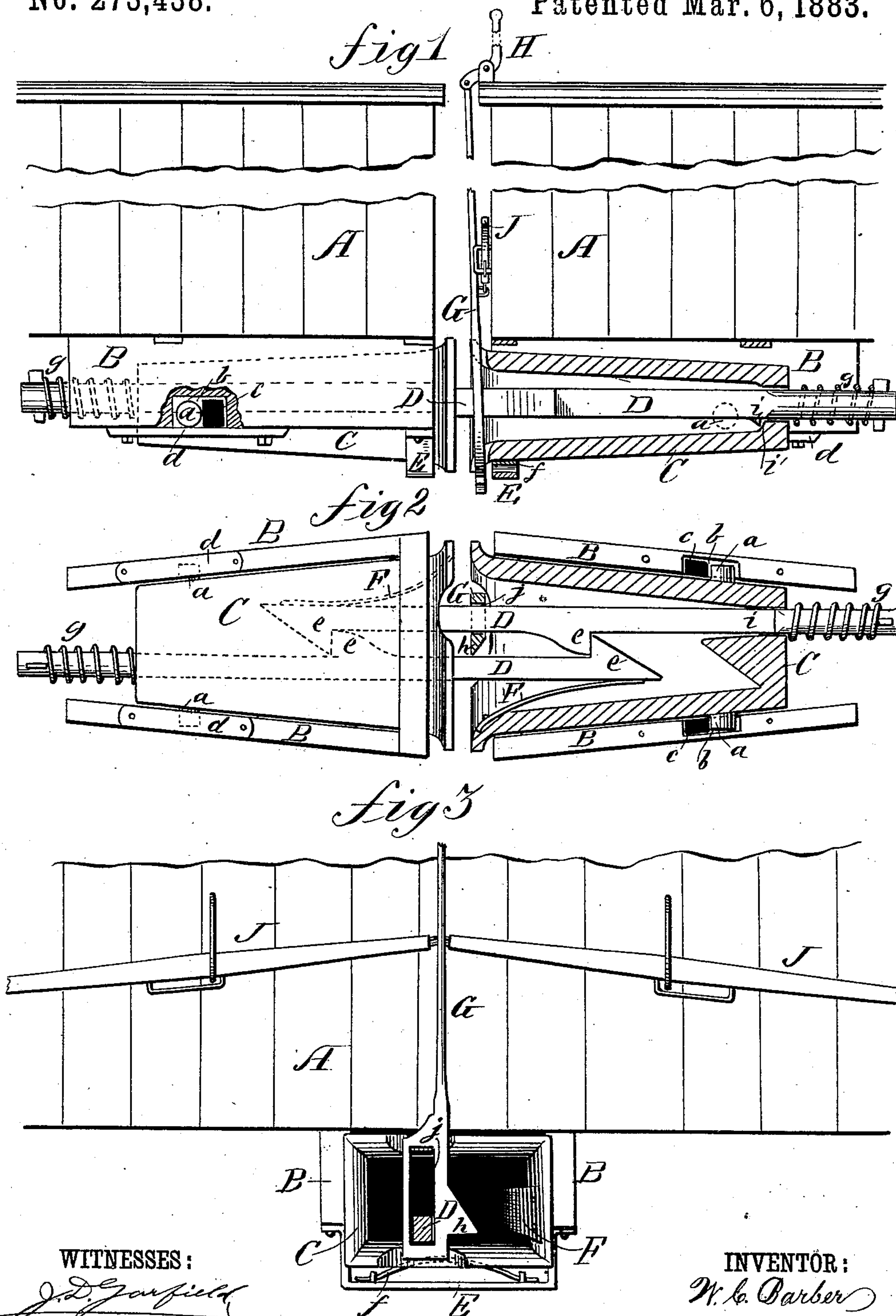
(No Model.)

W. C. BARBER.

CAR COUPLING.

No. 273,438.

Patented Mar. 6, 1883.



WITNESSES:

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BY

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# UNITED STATES PATENT OFFICE.

WANTON C. BARBER, OF VILLISCO, IOWA, ASSIGNOR TO HIMSELF AND  
JOHN S. GREEN, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 273,438, dated March 6, 1883.

Application filed November 29, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, WANTON C. BARBER, of Villisco, in the county of Montgomery and State of Iowa, have invented a new and Improved Car-Coupling, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of two freight-cars coupled with my new and improved car-coupling, the coupling being shown in broken and sectional side elevation. Fig. 2 is an inverted sectional plan view of the coupling and timbers for holding the same removed from the cars; and Fig. 3 is an end elevation of a car provided with one of my couplers, showing the device for uncoupling.

The invention will first be described in connection with the drawings, and then pointed out in the claims.

To the under side of the cars A A are secured the diverging timbers B B, between which are held the hollow tapering bell-mouthed castings C C, which latter constitute the draw-heads of the cars. These draw-heads are adapted to have vertical movement at their outer ends between the timbers B B, so that the hooked connecting-bars D D will enter the draw-heads when the cars are brought together for coupling, whether the cars are of the same height or not, and for this purpose I cast the draw-heads with the trunnions *a a*, and form the timbers B B, with the recesses *b b*, which receive the trunnions, as shown in Figs. 1 and 2, and place under the draw-heads (between them and the supporting-plates E) the springs *f*, which normally hold the outer ends of the draw-heads elevated against the bottom edge of the cars, as illustrated in Fig. 3, but permit the draw-heads to be moved downward against the tension of the springs. *cc* are buffer-springs placed in the recesses *b b*, against which the trunnions *a a* come when the cars are in motion, and these springs and the draw-heads are held in place in the recesses and between the timbers B B by the cleats *d d* and the above-mentioned supporting-plates E, as will be understood from the drawings. The connecting-

bars D D are each formed with two hooks, *ee*, which are adapted to engage with each other, as shown in Fig. 2, for connecting the cars, and the connecting-bars reach back through the draw-heads, and are provided at their rear ends, outside of the draw-heads, with the coiled springs *g g*, which furnish a yielding draw for the cars. The connecting-bars are held from being drawn backward too far through the draw-heads by the action of the springs *g g*, by means of the lips *i i'*, formed respectively on the connecting-bars and the draw-heads, as shown clearly in Fig. 1.

F F are flat springs, secured in the throats of the draw-heads, as shown in Figs. 2 and 3, for causing the connecting-bars of the opposing cars, as the cars are backed together for coupling, to be forced toward each other on entering the opposing draw-heads to insure the engagement of the hooks of the connecting-bars, and to keep the hooks engaged with each other until the bars are forced apart for uncoupling. The means for forcing the connecting-bars D D apart for uncoupling is shown clearly in Fig. 3, consisting of the vertically-movable bar G, formed with the cam *h*, and opening or slot *j*, through which the connecting-bar of the car passes to hold it in place. The cam *h* comes between the connecting-bars D D when the cars are coupled, as shown in Fig. 2, and the bar G extends nearly to the top of the car, where it is attached to the lever H, by which it may be raised, causing the cam *h* to spread the connecting-bars, thus disengaging their hooks, and thus uncoupling the cars. The bar G may be raised for uncoupling from either side of the cars by means of the levers J J, that are attached to the cars and to the bar G, as clearly shown in Fig. 3. Thus constructed it will be seen that the couplers are entirely automatic and certain in coupling; that the coupling-bars will enter the draw-heads and couple whether the cars are on the same level or not; that the coupling is cheap and perfectly practical, and that the cars may be uncoupled from the top or sides, thus entirely obviating the necessity and danger of going between the cars.

I am aware that it is not new to make a slotted draw-head slide horizontally and turn

vertically on a bolt, or to hold it forward by a spiral spring; but

What I do claim as new and of my invention is—

- 5 1. A draw-head having the trunnions *a a* near its rear end, in combination with the timbers *B B*, attached to the body of cars, and provided with slots or trunnion-bearings *b b*, and the springs *c c*, arranged in the recesses  
10 or bearings *b*, as and for the purpose specified.
2. The timbers *B B*, secured to the bottom of the car and formed with the recesses *b b*, in combination with the draw-heads *C*, formed with the trunnions *a a*, as set forth.
- 15 3. A car-coupling connecting-bar formed with two hooks on the same side, one at the outer end and the other at some distance to

the rear thereof, whereby it may couple, as described.

4. The combination, with the hooked draw- 20 bars *D D*, of the vertically-movable bar *G*, formed with the cam *h*, for uncoupling, substantially as described.

5. The bar *G*, formed with the slot or pas- 25 sage *j* for the connecting-bar, and with the cam *h*, as and for the purposes set forth.

6. The bar *G*, formed with the passage *j* and cam *h*, in combination with the levers *H* and *J*, for raising the bar for uncoupling, as set forth.

WANTON C. BARBER.

Witnesses:

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JOHN L. GREEN.