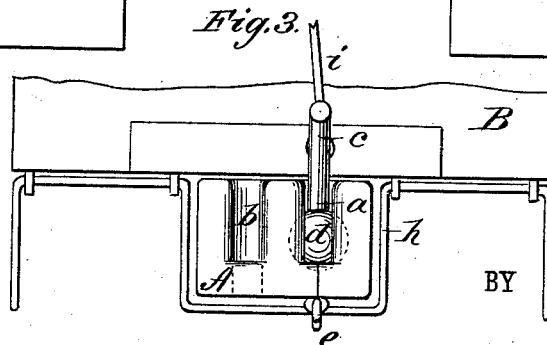
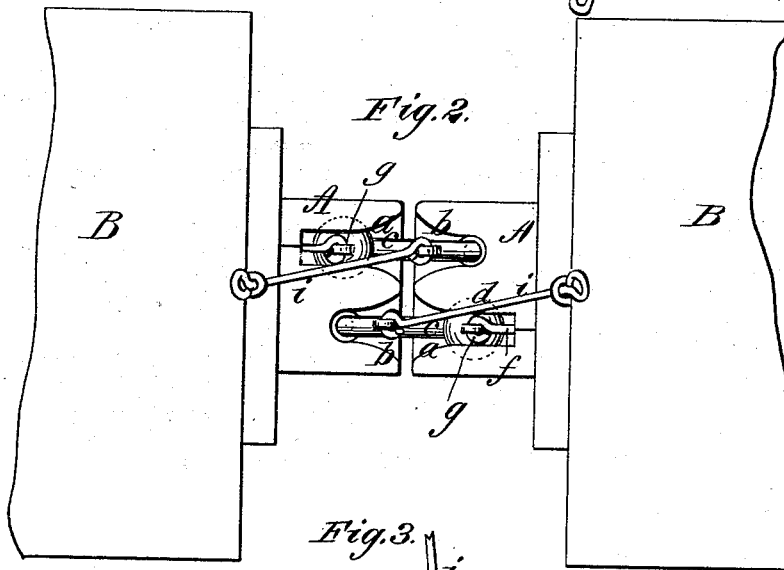
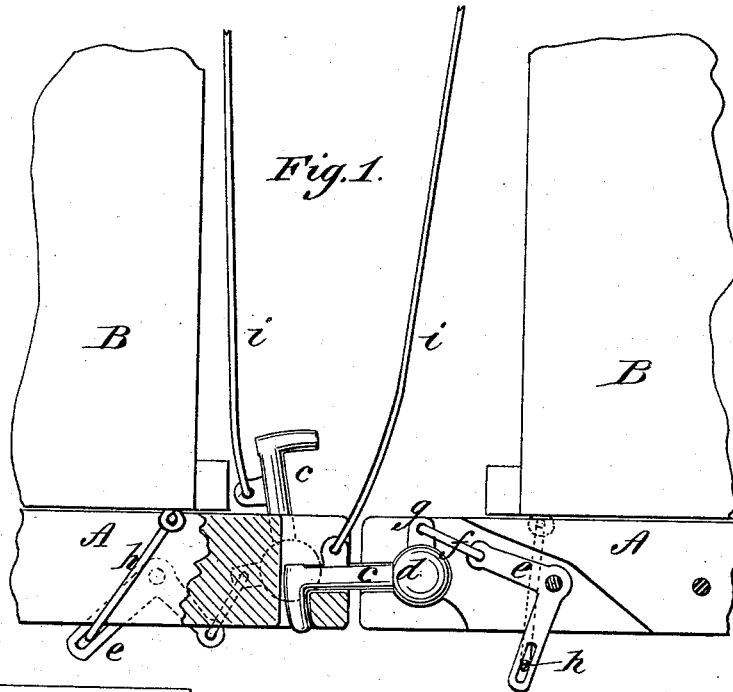


(No Model.)

J. A. MILLER.
CAR COUPLING.

No. 267,240.

Patented Nov. 7, 1882.



WITNESSES:

D. Twitchell.
L. Seligman.

INVENTOR:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN A. MILLER, OF WADESVILLE, INDIANA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 267,240, dated November 7, 1882.

Application filed April 13, 1882. (No model.)

To all whom it may concern :

Be it known that I, JOHN A. MILLER, of Wadesville, in the county of Posey and State of Indiana, have invented a new and useful

Improvement in Car-Couplings, of which the following is a full, clear, and exact description.

My improved devices are intended to allow the coupling of cars without the necessity of the operator passing between them ; and the invention consists in coupling-hooks hung to the draw-heads by ball-and-socket joints and provided with levers for their operation from the top of the cars, or from the ground at one side, as herein described and claimed.

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 sectional side view of my improved coupling as applied to use. Fig. 2 is a plan view of the same, and Fig. 3 is an end view of one draw-head.

A A are draw-heads on cars B B. Each head is formed with two recesses, *a b*, side by side, in one of which, *a*, the coupling-hook *c* is hung, while the recess *b* is formed to receive the hook of the contiguous draw-head. The hooks *c* are formed at their inner ends with balls *d*, which set into concave sockets or seats formed in the sides of recesses *a*, so that ball-and-socket joints are formed, on which the hooks are free to swing up and down, and also laterally so far as permitted by the width of

recesses *a*. In slots extending back from recesses *a* bent levers *e* are hung, and links *f* connect the upper ends of such levers with lugs *g* on balls *d*. The lower ends of levers *e* are slotted, and through them pass levers *h*, that are hung to the car-bottom, and extend at both sides in convenient position for operation to move levers *e* and raise the hooks *c*. For raising the coupling-hooks from the top of the cars, I provide rods *i*, connected to lugs on the outer ends of hooks *c*, and extending upward to the car-roofs.

These coupling devices are of a construction which insures their durability, and they can be readily applied to ordinary draw-heads.

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

1. The coupling for cars, consisting of hooks *c*, hung by balls *d* in recesses *a* of the draw-heads, that are formed with recesses *b* for receiving the outer ends of the hooks, as shown and described.

2. The combination, with slotted coupling-hooks *c*, of bent levers *e*, connected by links *f* with lugs *g* on the balls *d*, and levers *h*, passing through slots of said levers *e*, as and for the purpose specified.

JOHN A. MILLER.

Witnesses:

HUME PELT,
DAVID KRAUSGRILL.