

(No Model.)

A. O. NIEDLANDER.
CAR COUPLING:

No. 416,640.

Patented Dec. 3, 1889.

Fig. 1.

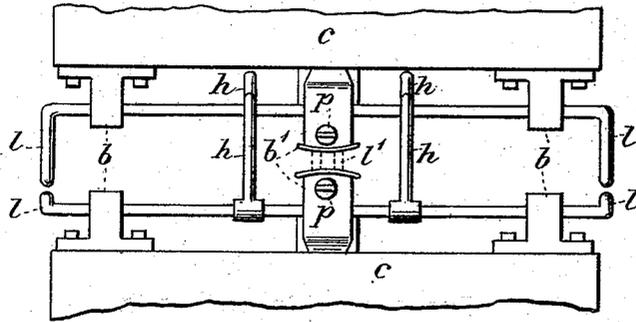


Fig. 2.

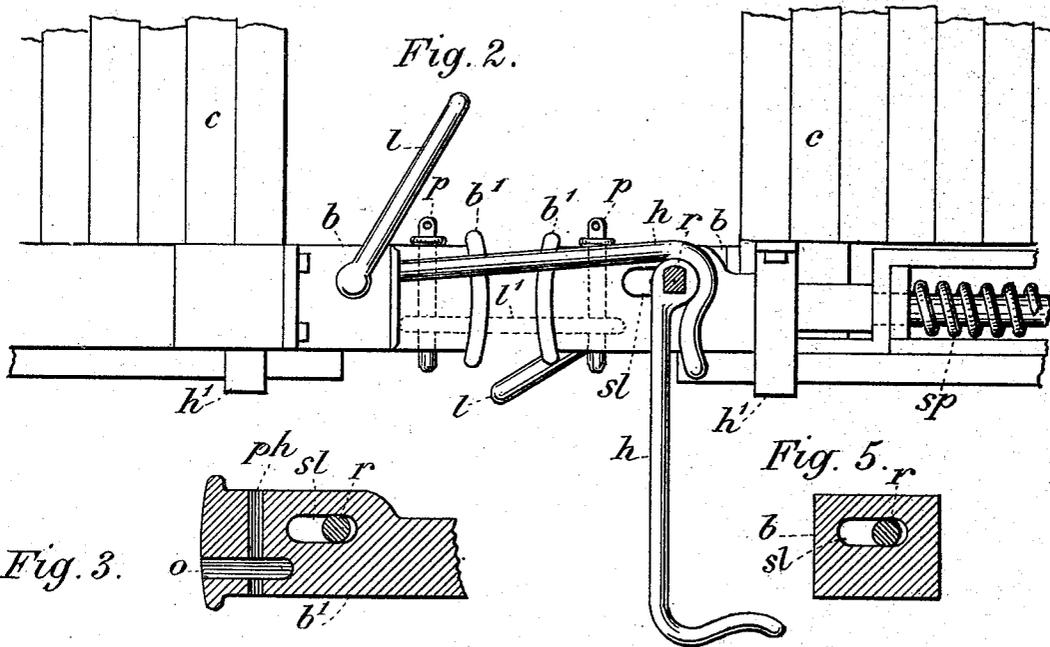


Fig. 3.

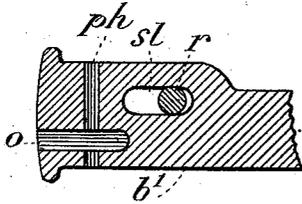


Fig. 5. r

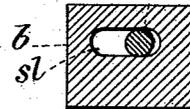
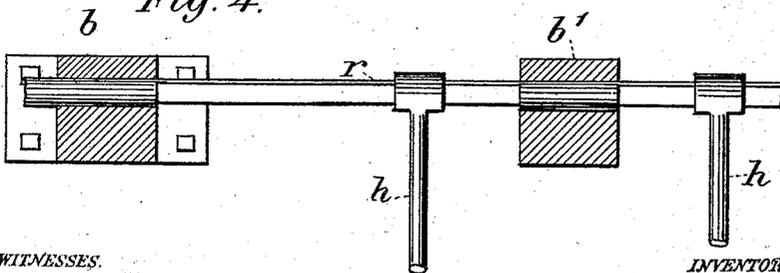


Fig. 4.



WITNESSES.

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UNITED STATES PATENT OFFICE.

ALLEN O. NIEDLANDER, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF TO GEORGE H. MILLER, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 416,640, dated December 3, 1889.

Application filed November 12, 1888. Serial No. 290,611. (No model.)

To all whom it may concern:

Be it known that I, ALLEN O. NIEDLANDER, of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Car-Couplers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

My invention relates to the construction of car-coupling devices, and is an improvement on the coupler for which Letters Patent No. 391,719 were issued to me on the 23d day of October, 1888, and will be understood from the following description.

In the drawings, Figure 1 represents a top view of my device connected to the ends of opposite cars. Fig. 2 is a side view of the same. Fig. 3 is a longitudinal section of the draw-head, showing the openings for the pin and link and slot for the rod *r*. Fig. 4 is a detail view of the rod upon which the coupling-hooks are mounted, one of the bumpers and the central draw-head being in cross-section. Fig. 5 is a horizontal section of one of the bumpers, showing the slot through which the rod *r* passes.

In detail, *c* is a car having bumpers *b* bolted to the end on each side and provided with a central draw-head *b'*, connected to a draw-bar in the usual manner, as shown in Fig. 2. The rod *r*, having upturned ends forming levers *l*, is journaled in the central draw-head and passes through slots *sl* formed in the bumpers *b*. This rod is rounded where it is journaled in the draw-head and where it passes through the bumpers, and its sides are squared the rest of the way. On this rod are keyed hooks *h*, having holes corresponding in shape with the rod, and by removing the keys the hooks may be moved along the rod, but will not turn upon it. They turn with the rod when the latter is revolved in its bearings.

The slots *sl* of the bumpers *b* are elongated, so as to allow the draw-head to be forced backward by contact with the adjacent car without affecting the rod *r*, and are made long enough to allow the necessary backward movement. The draw-bar has a coiled spring *sp* mounted on its inner end in the usual manner. This spring takes up the recoil and

forces the draw-head forward when the pressure is removed. The hooks *h*, as has been said, are of any convenient length and are mounted on the rod *r*, and whenever the levers *l* are turned are lifted or lowered, so that the car may be coupled or uncoupled through the action of these levers.

When the hooks *h* are not in use they may be thrown down out of the way in the position shown at the right hand in Fig. 2. Here the hooks of one car are shown coupled over the rod of the next adjacent car.

The central draw-head *b'* is provided with a recessed opening *o*, admitting an ordinary link *l'*, and another opening *ph* to admit an ordinary pin *p*, and this will allow the car upon which my improved coupling device has been placed to be coupled to a car having the ordinary link-and-pin coupling, or both couplings may be used at once, as shown in Fig. 2.

If desired, the elongated slot *sl* may be formed in the draw-head *b'*, as in Fig. 3, instead of the bumpers *b*, and in the latter an ordinary round opening providing bearings for the rod would then be sufficient; but the former method is preferable.

In practice it is desirable that the hooks *h* should be set upon the rod *r* on either side and near to the central draw-head *b'*, as shown in Fig. 1, and this arrangement is preferable for short curves, as the strain is thus brought along the central line of draft.

What I claim as my invention, and desire to secure by Letters Patent, is the following, viz:

1. The car-coupler herein described, comprising the rod *r*, squared between its bearing parts, hooks *h*, mounted upon the squared portions, bumpers *b*, having slots *sl* to admit such rod, the central draw-head *b'*, in which the rod *r* is journaled, having openings *o* and *ph* for the ordinary link-and-pin coupling, substantially as shown and described.

2. A car-coupler provided with bumpers *b* on each side, the central draw-head *b'*, having slot *sl* and openings *o* and *ph* for link-and-pin couplings, the rod *r*, carrying hooks *h*, mounted thereon, journaled in bearings in the bumpers *b* and passing through the slot *sl* of the central draw-head, with means—such as

levers *l*—connected to such rod for operating the coupling-hooks, all combined substantially as shown and described.

3. In a car-coupler, a central draw-head
5 having openings for an ordinary link and pin, a rod journaled therein squared between its bearing-points, coupling-hooks *h*, mounted thereon, side bumpers *b*, having slots *sl*,
10 through which such rod passes, and levers *l*, formed upon one or more ends of such rod for operating the same, all combined substantially as shown and described.

4. In a car-coupling device, a car *c*, having side bumpers *b*, with slots *sl* through the same,
15 the central draw-head *b'*, having openings for

an ordinary link and pin, a rod *r*, journaled in such central draw-head, squared between its bearing-points, and passing through the side bumpers, coupling-hooks *h*, mounted upon such rod, with levers *l* formed upon one or 20 more ends thereof for operating the same, all combined substantially as shown and described.

In witness whereof I have hereunto set my hand this 5th day of November, 1888.

ALLEN O. NIEDLANDER.

Witnesses:

C. P. JACOBS,
GEO. H. MILLER.