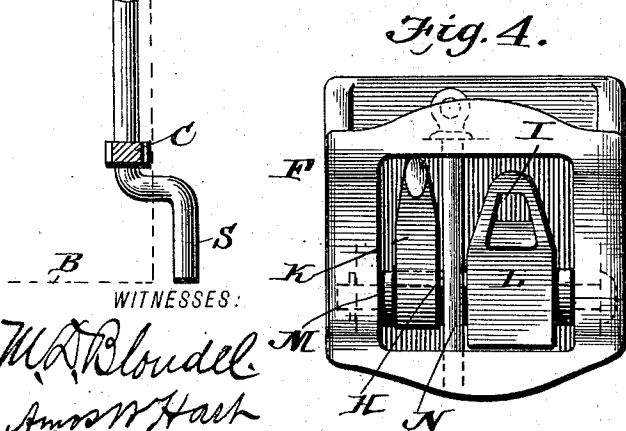
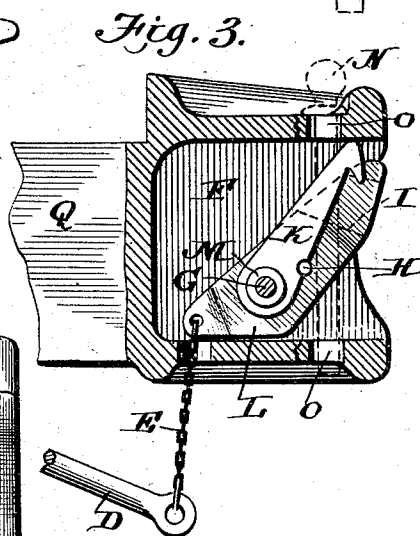
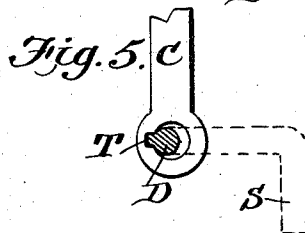
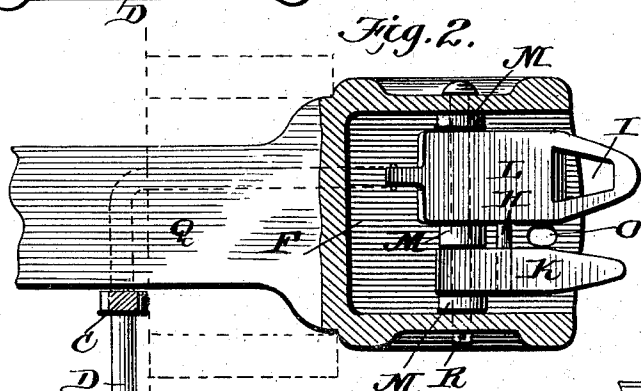
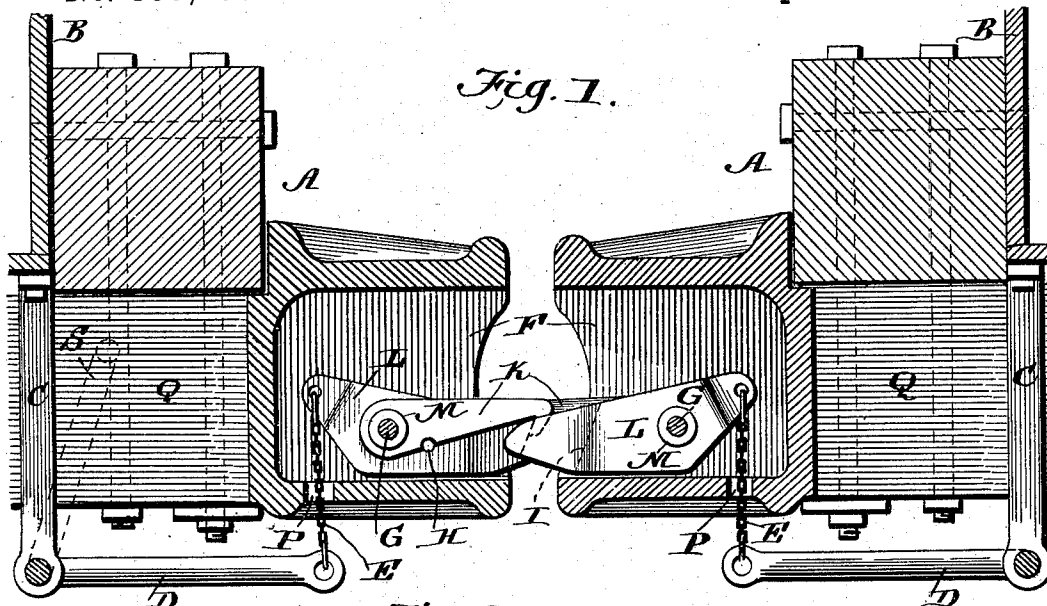


(No Model.)

J. N. VAN DORN & C. G. SEAMAN.
CAR COUPLING.

No. 559,235.

Patented Apr. 28, 1896.



UNITED STATES PATENT OFFICE.

JAMES N. VAN DORN AND CHARLES G. SEAMAN, OF SPOKANE, WASHINGTON.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 559,235, dated April 28, 1896.

Application filed July 2, 1895. Serial No. 554,753. (No model.)

To all whom it may concern:

Be it known that we, JAMES NICHELSON VAN DORN and CHARLES G. SEAMAN, citizens of the United States, residing at Spokane, in the county of Spokane and State of Wash-
5 ington, have invented a new and useful Automatic Car-Coupler, of which the following is a specification.

Our invention relates to improvements in
10 automatic car-couplers; and the objects of our improvements are, first, to provide an automatic coupler; second, to afford facilities for uncoupling without entering between the cars; third, providing two separate and
15 distinct connections at each coupling; fourth, affording facilities for connecting the old link-and-pin coupling with our patent coupler; fifth, coupler so constructed that any part can be easily replaced in event of break-
20 age; sixth, allowing sufficient play for turning sharp curves; seventh, constructed to prevent any possibility of uncoupling while train is in motion; eighth, arranged so train-
25 men can disconnect coupling while standing on the ladder by pressing foot down on handle S. We attain these objects by the mechanism illustrated in the accompanying draw-
ings, in which—

Figure 1 is a vertical section through the
30 draw-heads showing coupling; Fig. 2, a horizontal section; Fig. 3, a vertical section showing coupler raised; Fig. 4, a front view of bumper, showing coupler raised; Fig. 5, a device for holding up the automatic coupler
35 while connection is made with pin and link.

Similar letters refer to similar parts throughout the several views.

The shoe L and dog K are held in position by pin G, having a round head on one
40 end and a split key R on the other end. Shoe L is provided with slot I to receive hook of dog K. Pin H is cast onto shoe L and holds dog K in position. The hubs M are cast onto shoe L and dog K to prevent them from catch-
45 ing. The shoe L is connected by chain E with the lever D. Lever D is provided with handle S. Connection of chain E and lever D is made with a clevis. The lever-rod D is supported on hangers C, bolted to under side

of car. Lever-rod D is provided with lug T, 50
Fig. 5, fitting into a notch of front standard C, thereby holding up the automatic coupler while a pin-and-link connection is used. A indicates timber in back of draw-head; B, outside line of car; F, coupling-box; N, pin 55
for link connection; O, pin-holes; P, slot for lever-chain; Q, draw-head.

The operation of our coupler is as follows: To make a coupling when the couplers come together, the hooks of dogs K slide over the
60 nose of shoes L and drop into slots I, making a double connection. To uncouple, the bumpers must touch. Pressing down on handle S, the lever raises the shoe L and dog K, lifting dog K out of slot I of the opposite shoe, 65
and the nose of shoe L presses up the dog K of the opposite coupler, thereby releasing the coupling. To hold the automatic coupler up, as shown in Fig. 3, press down on handle S, 70
thereby raising the coupler, and press the lug T into the notch provided in standard C. To take the coupler apart, remove the split pin R, disconnect chain E from clevis at lever D, and draw out pin G.

What we do claim for our invention, and 75
desire to secure by Letters Patent, is—

1. A draw-head provided with a shoe, or lever L, having an opening in its projecting front end, and a pin projecting from one side, a pivoted hook which is arranged alongside 80
such shoe and normally rests on said pin, and means for depressing the rear end of such shoe, for disengaging it and the hook from coupling devices in another draw-head, as shown and described. 85

2. The combination of two draw-heads, and two like sets of coupling devices, each set composed of a pivoted shoe or lever having an opening in its front end and a lateral pin, and a pivoted hook, which normally rests on 90
said pin, and means for tilting the lever of either set, as shown and described.

J. N. VAN DORN.
CHARLES G. SEAMAN.

Witnesses:

W. L. COLE,
JULIUS A. ZITTEL.