G. D. LEASE.

CAR-COUPLING.

No. 190,227. Patented May 1, 1877.

Fig. 1.

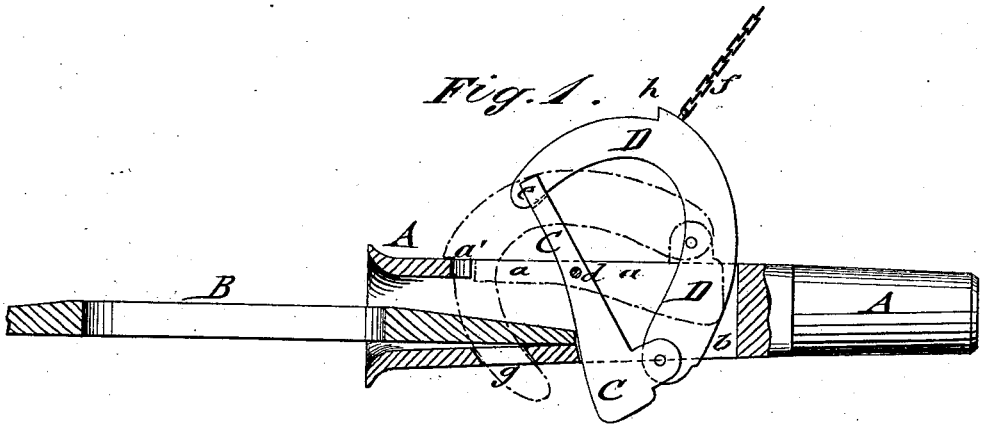


Fig. 2.

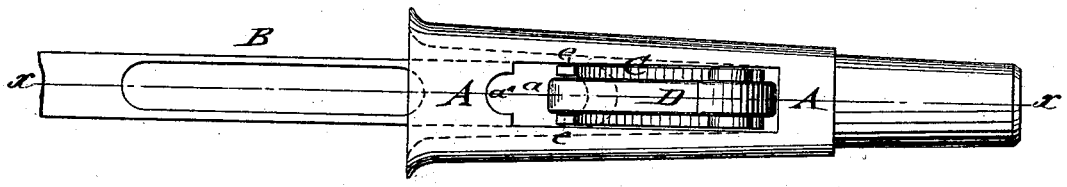
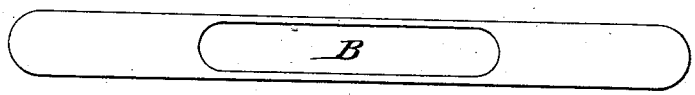


Fig. 3.



WITNESSES:

H. Rydquist

J. H. Scarborough

INVENTOR:

G. D. Lease

BY

ATTORNEYS.

UNITED STATES PATENT OFFICE.

GURDIN D. LEASE, OF JEFFERSONVILLE, VERMONT.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **190,227**, dated May 1, 1877; application filed March 3, 1877.

To all whom it may concern:

Be it known that I, GURDIN D. LEASE, of Jeffersonville, in the county of Lamoille and State of Vermont, have invented a new and Improved Car-Coupling, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section on line *x x*, Fig. 2, of my improved car-coupling; Fig. 2, a top view of the same, and Fig. 3 a top view of the coupling-link detached.

Similar letters of reference indicate corresponding parts.

The invention relates to an improved car-coupling that couples in automatic manner by the entrance of the link; and it consists of a longitudinally-slotted draw-head with centrally-pivoted and weighted lever-bar, and curved or hook-shaped coupling-pin, that is pivoted to the rear end of the lever-bar, and dropped with the same by the action of the coupling-link into a top recess and bottom pin-hole of the draw-head, coupling thereby the link.

In the drawing, A represents a draw-head of the usual shape, with curved or tapering mouth for the entrance of the coupling-link B.

The draw-head A is provided with a longitudinal top slot, *a*, and shorter bottom slot *b*.

A lever-bar, C, is fulcrumed to a cross-pin, *d*, of the upper slot *a*, and made somewhat longer or heavier at the rear end, while the front end is notched or recessed to form a seat, *e*, for the hook-shaped coupling-pin D, which is pivoted to the rear end of the lever-bar C, and connected by a chain, *f*, with a suitable uncoupling mechanism of the platform, top, or side of the car, so as to readily raise the pin out of the link, and throw thereby the weight of the same on the rear end of the lever-bar, causing both pin and lever to swing back into upright position against the rear part of the draw-head, as shown in Fig. 1.

When the coupling-link B enters the mouth of the draw-head it passes the bottom part of the same, strikes against the lower weighted part of the lever-bar, carries the same upward into horizontal position, and throws the bent pin D along the notched end of the lever-bar, and along a corresponding front recess, *a'*, of slot *a* through the link, and into a bottom pin-hole, *g*, so as to securely couple the link.

A shoulder or projection, *h*, of the pin D rests then on the top part of the draw-head, and controls the extent of downward or dropping motion, as produced by the contact of the link with the weighted lever-bar.

The lever-bar serves, furthermore, by its broader and downward-extending rear end, for the purpose of bearing on the solid end of the link and retaining it in horizontal position for coupling.

The coupling may also be used in connection with cars having the common pin-and-link coupling, as the curved or bent hook-pin couples with equal facility with the common link, as well as with the flat or solid-ended link shown in Fig. 3.

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

1. An automatic car-coupling composed of a slotted draw-head, A, coupling-link B, fulcrumed lever-bar C, and curved or hook-shaped pin D, pivoted to the rear end of the lever-bar C, all arranged and operated substantially as and for the purpose set forth.

2. The combination of the draw-head A, having top slot *a*, front extension or recess *a'*, and bottom pin-hole *g*, with the notched end of the fulcrumed lever-bar C, and with curved or hook-shaped pin D, having projection *h*, to throw the pin forward for coupling on entrance of link, substantially in the manner and for the purpose specified.

3. The combination of the slotted draw-head A, and of the fulcrumed and weighted lever-bar C, having notched front end, with the curved or hook-shaped coupling-pin pivoted to the weighted rear end of lever C, to be retained in uncoupled position, substantially as described.

GURDIN D. LEASE.

Witnesses:

WILLARD H. GRISWOLD,
LEVI L. SMITH.