

(No Model.)

C. DEMAUREZ.
CAR COUPLING.

No. 466,713.

Patented Jan. 5, 1892.

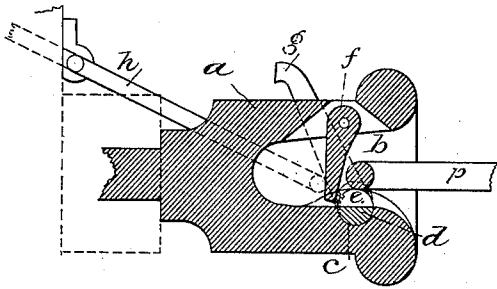


Fig. 1.

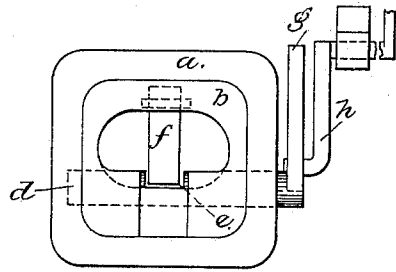


Fig. 2.

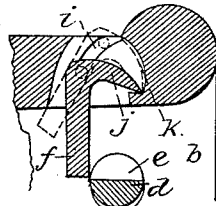


Fig. 7.

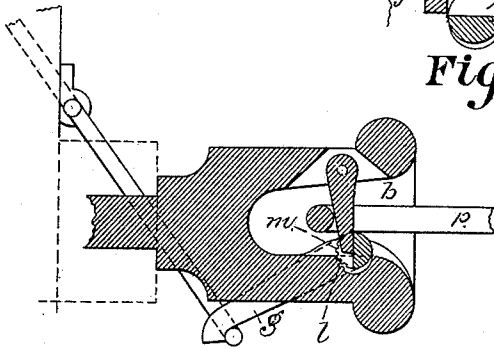


Fig. 3.

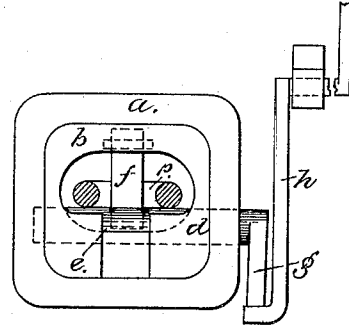


Fig. 4.

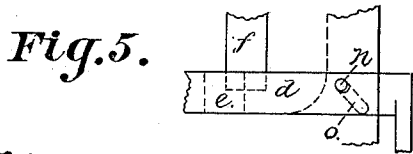


Fig. 5.

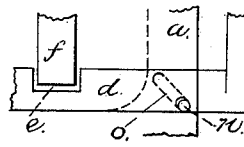


Fig. 6.

Witnesses:

E. B. Cummings
Geo. L. Gerrish

Inventor:

Charles Demaree
per Elgin Berrie
att'y.

UNITED STATES PATENT OFFICE.

CHARLES DEMAUREZ, OF GREENVILLE, ASSIGNOR OF ONE-HALF TO HENRY SOULE AND DAVID W. SCHWARZ, OF PORTLAND, MAINE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 466,713, dated January 5, 1892.

Application filed September 23, 1891. Serial No. 406,572. (No model.)

To all whom it may concern:

Be it known that I, CHARLES DEMAUREZ, of Greenville, in the county of Piscataquis and State of Maine, have invented certain new and useful Improvements in Car-Couplings; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 is a central longitudinal section showing the several parts in position to be uncoupled. Fig. 2 is an end view of the same. Fig. 3 is a central longitudinal section showing the parts in their normal positions. Fig. 4 is an end view of the same. Figs. 5 and 6 are detail views showing a different method of operating the cross-bar. Fig. 7 is a detail view showing the coupling-pin arranged to have a vertical movement.

Same letters refer to like parts.

My invention relates to car-couplers, and is specially designed to make an automatic coupler and to render it capable of being readily and easily uncoupled even while the link is drawn heavily against the coupling-pin. It consists of a draw-bar having an open end, a horizontal cross-bar adapted to revolve in holes in the sides of said draw-bar and having a portion removed or cut away at the center, and a pivoted coupling-pin adapted to engage with said cross-bar, and in other details of construction hereinafter more fully set forth and described.

In said drawings, *a* represents a draw-bar having the open end *b*, the outer part of which should be slightly flaring to more readily admit the link. In the sides of the draw-bar are two holes *c*, in which are inserted the ends of a cross-bar *d*, said cross-bar having a cut-away or recessed portion *e*. Pivoted in the top of the draw-bar is a pin *f*, adapted to swing back and forth and to engage the cross-bar *d*, except when it is turned, so that the recessed portion is on top, as shown in Fig. 3, but to swing freely when said recessed part is on top, and thus allow the link to be withdrawn. Attached to either end of said cross-bar are

lever-arms *g*, which by force of gravity hold the cross-bar in position to engage the pin. Adapted to engage with said lever-arms *g* are pivoted levers *h*, which extend out to the sides of the car, so that the cars may be uncoupled without its being necessary to pass between them. It may also extend to the top of the car, so that they may be uncoupled from the top also.

To lessen the distance which the link must pass through to allow the pin to drop into it, I may use, instead of a pin set on a stationary bar, as shown in Fig. 1, the arrangement shown in Fig. 7, wherein the pin is pivoted on a bar set loosely in a slot *i* and has a spur *j*, adapted to rest in a recess *k*, made in the draw-bar, so that when the link strikes the lower end of the pin the pin at the same time that it is driven backward is also forced upward. By this arrangement the length of the coupling-link, and consequently the slack, is much lessened.

To enable the cross-bar to be more readily and easily turned, I may make the holes *c* somewhat oval-shaped and have made in the top a series of cogs *l*, adapted to mesh with the cogs *m* on the cross-bar, so that when the bar is in the position to engage the pin it will be raised to the top of the oval holes, and when the lever-arm is raised to turn the bar to allow the link to uncouple the bar drops to the bottom of said oval holes, as seen in Fig. 1. It will be evident that however great the strain of the link against the pin the bar can be easily turned, since every part of the contact portion is being turned away from the pin.

In Figs. 5 and 6 the cross-bar is shown as adapted to have a sidewise movement, so that the recessed portion *e* may be carried beyond the line in which the pin swings, as shown by dotted lines in Fig. 5. This may be done in various ways, one of which is illustrated in said Figs. 5 and 6, wherein a spur *n* is set in the cross-bar and made to slide in an inclined slot or groove *o* in the draw-bar.

Having thus described my invention and its use, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a car-coupler, a draw-bar having an open end, a cross-bar journaled in oval-shaped holes in the sides of the draw-bar and having

a recess therein, said oval openings having
cogs at the top and said cross-bar having cogs
to mesh therewith, and a link-pin pivoted in
the top of the draw-bar, substantially as and
5 for the purposes set forth.

2. In a car-coupler, a draw-bar having an
open end, a cross-bar having a recess therein,
journaled in holes in the sides of the draw-
bar, and a link-pin pivoted in a slot in the top
10 of the draw-bar, said pin having a dog pro-
jecting forward and having its point resting

in a recess in the draw-bar, substantially as
and for the purposes set forth.

In testimony that I claim the foregoing as
my own I affix my signature in presence of 15
two witnesses.

Portland, Maine, September 18, 1891.

CHARLES DEMAUREZ.

Witnesses:

ELGIN C. VERRILL,
HENRY SOULE.