

D. HARPER.
CAR-COUPLING.

No. 170,259.

Patented Nov. 23, 1875.

Fig. 1

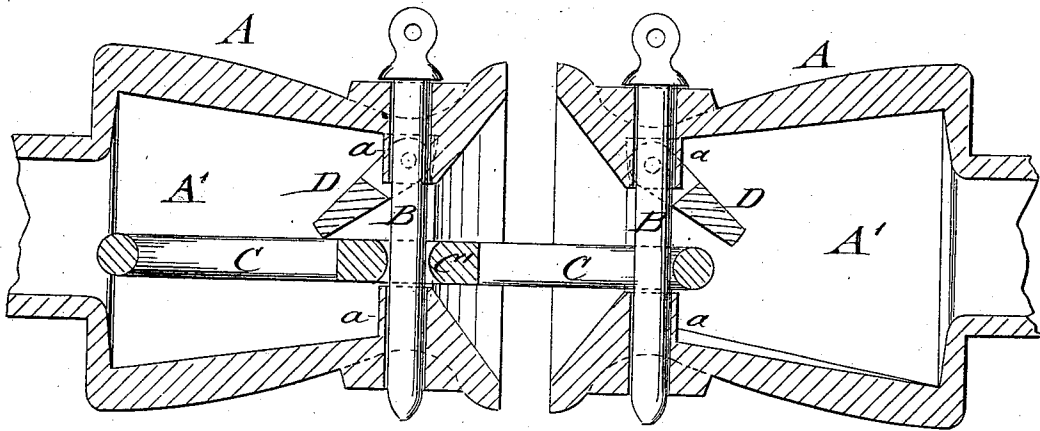


Fig. 2.

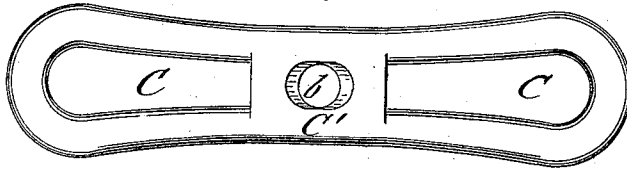


Fig. 3.

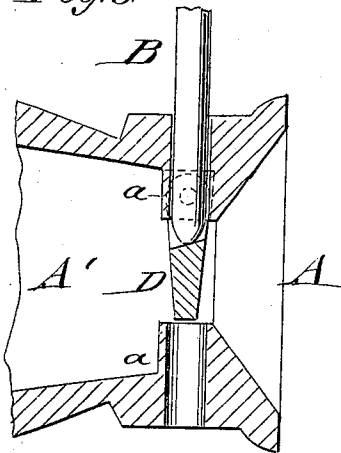
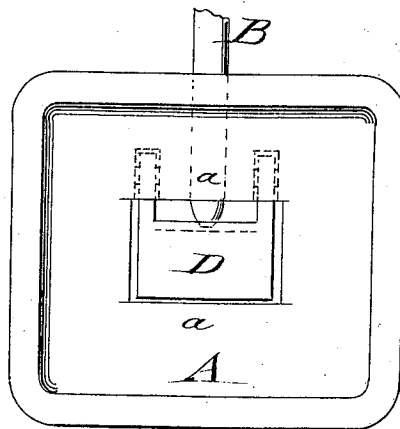


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

DERASTUS HARPER, OF HEARNE, TEXAS.

IMPROVEMENT IN CAR-COUPPLINGS.

Specification forming part of Letters Patent No. **170,259**, dated November 23, 1875; application filed October 3, 1874.

To all whom it may concern :

Be it known that I, DERASTUS HARPER, of Hearne, in the county of Robertson and State of Texas, 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 of my automatic car-coupling as connected by the double link. Fig. 2 is a top view of the double link detached; and Figs. 3 and 4, respectively, a vertical section, and a front view of a draw-head, showing coupling-pin in raised position ready for coupling.

Similar letters of reference indicate corresponding parts.

The invention is an improvement in the class of couplings in which a balanced link is employed, (as illustrated in patent of McEwen, December 3, 1872.)

The invention relates to the combination of a link having a central perforated cross-bar or stay-piece, in combination with a draw-head, constructed with a projection on its floor to support said link, as hereinafter described.

In the drawing, A represents the draw-head; B, the coupling-pin, and C the coupling-link, made of the usual material. The draw-head A has a tapering mouth, with interior top and bottom projections *a*, and an enlarged cavity, A', back of the same for admitting the swinging of the link in upward and downward inclined position, for the purpose of coupling with draw-heads of cars with platforms of different height. The projections *a* are both perforated for the coupling-link, the lower one forming a horizontal support for the link, while the upper projection *a* is recessed at both sides of the pin-hole for pivoting the arms of the swinging gate D therein. Pin B is of the

usual form, and raised for uncoupling by any suitable mechanism from the top of freight-cars or platform of passenger-cars. The coupling-link C is made in the shape of a double link, as shown in Fig. 2, with a central welded stay, C', having a hole, *b*, for the passage of the pin. The link C is placed on the lower projection *a* of one draw-head, and the pin dropped, so that the link is balanced thereon in horizontal position ready for coupling with the approaching draw-head. The pin B of the other draw-head is supported on the top part of the swinging gate D, which is prevented from swinging to the outside by the top projection *a*, but which is readily carried back by the entering link, so as to release the pin, and drop the same for coupling with the link. On raising the pin for uncoupling the link the gate drops into vertical position, and supports the pin on the recessed part between its arms.

By the enlarged shape of the draw-head back of its mouth the same serves also as buffer in connection with the hanger-timbers and the frame of car, relieving thereby the cushioning-spring from a great part of the wear exercised thereon, and preventing the too rapid exhaustion of the same.

I do not claim, broadly, a link constructed with a central stay-piece.

What I do claim is—

The link C, having the central stay C', with perforation *b* to receive the pin B, in combination with the draw-head A, having the base projection *a*, upon which said link is supported, as shown and described.

DERASTUS HARPER.

Witnesses:

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