(No Model.)

A. H. SAUNDERS.

CAR COUPLING.

No. 497,608. Patented May 16, 1893.

Fig. 1.

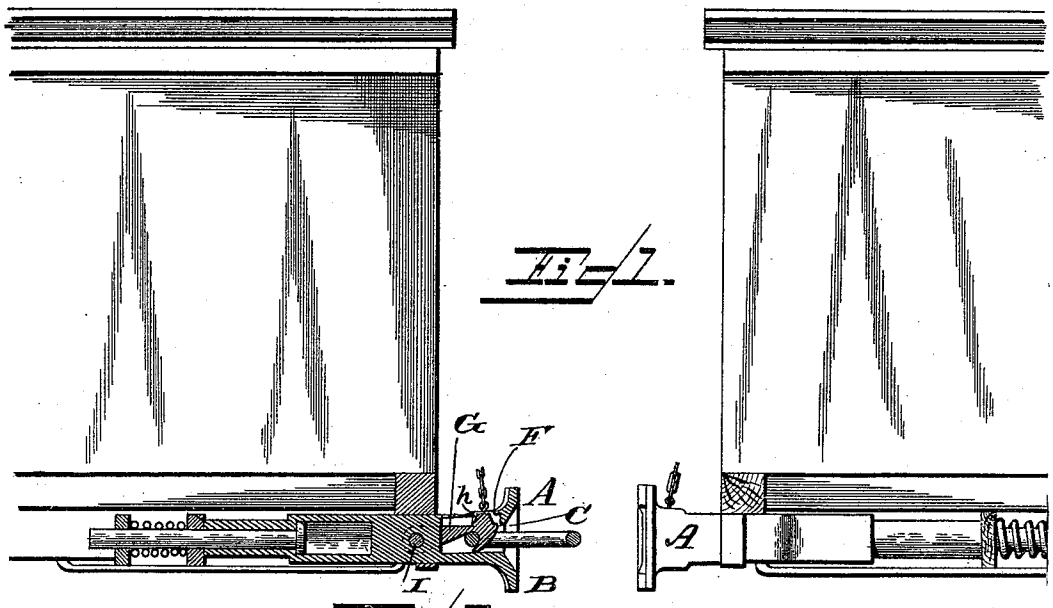


Fig. 2.

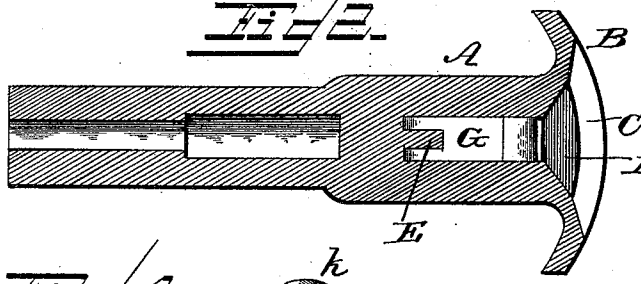


Fig. 3.

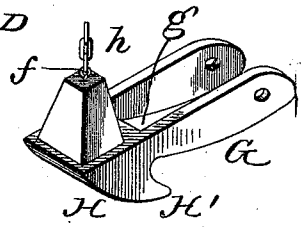


Fig. 4.

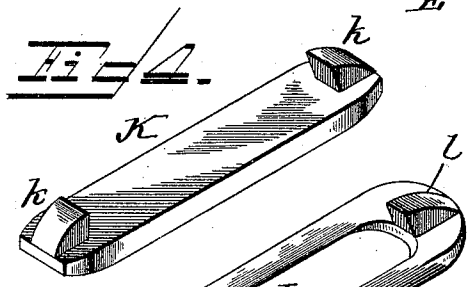
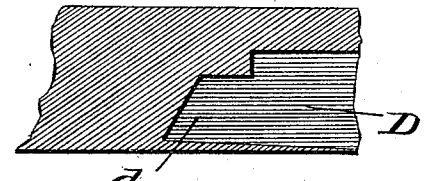


Fig. 5.

Fig. 6.



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UNITED STATES PATENT OFFICE.

ALANSON H. SAUNDERS, OF BURNSIDE, ASSIGNOR OF ONE-HALF TO FREDERICK J. MACK AND GEORGE W. HAYDEN, OF ESSEX, CONNECTICUT.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 497,608, dated May 16, 1893.

Application filed September 10, 1892. Serial No. 445,551. (No model.)

To all whom it may concern:

Be it known that I, ALANSON H. SAUNDERS, a citizen of the United States, and a resident of Burnside, in the county of Hartford and State of Connecticut, 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, which form a part of this specification, and in which—

Figure 1 is a longitudinal sectional view of a drawhead of my improved construction, showing the same ready for coupling with a drawhead opposite, using an ordinary link. Fig. 2 is a horizontal sectional view through the drawhead, looking upward toward the pivoted coupling-latch. Fig. 3 is a perspective detail view of said coupling-latch, removed from the drawhead. Fig. 4 is a perspective view of a coupling bar adapted to be used in connection with my improved coupling. Fig. 5 is a perspective view of a link also especially adapted for use with this coupling, as well as with the ordinary link-and-pin coupling; and Fig. 6 is a vertical sectional view of the inside rear part or throat of the drawhead, in which the pivoted latch works.

Like letters of reference denote corresponding parts in all the figures.

This invention relates to so-called automatic car couplings, or "self-couplers," of that type which may be used as an ordinary "pin-and-link" coupling when desired, and my improvement consists in the novel construction and combination of parts of the drawhead and the link adapted to be used therewith, as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings, the letter A designates the drawhead of my improved coupling, which has the usual buffer-flange B and flaring mouth C, leading into the throat D. The latter consists of a rectangular recess in the front part of the drawhead, of sufficient size to admit the coupling bar or link, as the case may be, and having a central projecting tongue, E, on opposite sides of which the inner end of throat D is undercut, as shown at *d*, in Fig. 6. In the forward end of the throat is an opening, F, for the admission of the nose *h*, of the coupling latch G. The latter, shown removed from the drawhead in Fig. 3, is bifurcated so as to form a central slot or opening *g*, and is beveled or made slanting at its solid forward end, H, above which is the solid abutment or nose-piece *h*. The bifurcated latch is placed in the throat D so that the solid tongue E will project between its two inner ends or arms, as shown in Fig. 2; a bolt, I, being inserted transversely through the solid sides of the drawhead, the bifurcated ends of the latch, and the central tongue E. The inner ends of the latch are rounded so as to fit within the undercut recesses *d*, in the throat, on opposite sides of the centrally projecting tongue, so that the latch has a free up-and-down play within the drawhead. The solid sloping front end H of the latch has a downwardly projecting hook H′, at its front end, fitting, when the latch is in its operative position, into a correspondingly-shaped recess *h′* in the under side of the throat. The upper end of the nose piece *h*, which projects through the top aperture F, is provided with a hook or eyebolt, *f*, for the attachment of the chain used for raising the latch in uncoupling. This drawhead may be used with three different forms of couplings, viz., the ordinary link, coupled with the hooked latch as illustrated in Fig. 1; the hooked coupling bar K, shown in Fig. 4; and a link of the construction shown in Fig. 5; said link, L, being adapted for use also with a drawhead of the ordinary description, using a pin for coupling. When this link L is used with my improved coupling, it is coupled to the drawhead by its nose or projection *l* entering the slot or opening *g* in the coupling latch, and also by the hook H′ entering and interlocking with the link, thus forming an absolutely safe duplex coupling. By raising the latch G, the link will be instantly released from the drawhead.

Instead of the link L, a bar of the shape illustrated in Fig. 4 may be employed, if desired, said coupling bar K having a hook, *k*, at each end, adapted to engage the slot in the coupling latch G. The hooks *k* and *l*, of the bar K and link L respectively, are made sloping, so that they will readily slide under the beveled front end H H′ of the latch when the

drawheads are brought together for coupling, as shown in Fig. 1.

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

1. The combination of the drawhead A having throat D provided with the centrally projecting tongue E and undercut side recesses *d d*, fulcrum bolt I, and bifurcated latch G having the solid beveled nose-piece H H′, substantially as and for the purpose shown and set forth.

2. In a car coupling, the combination with the drawhead A having throat D, centrally projecting tongue E, and pivoted bifurcated latch G constructed as described, of the coupling-link L provided at opposite ends with hooks, *l*, projecting in a plane at right angles to the link and adapted to enter and engage the slot in the pivoted coupling-latch; substantially as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

ALANSON H. SAUNDERS.

Witnesses:
JOHN PHELPS,
THOMAS W. COULTER.