

(No Model.)

H. MITCHELL.
CAR COUPLING.

No. 259,331

Patented June 13, 1882.

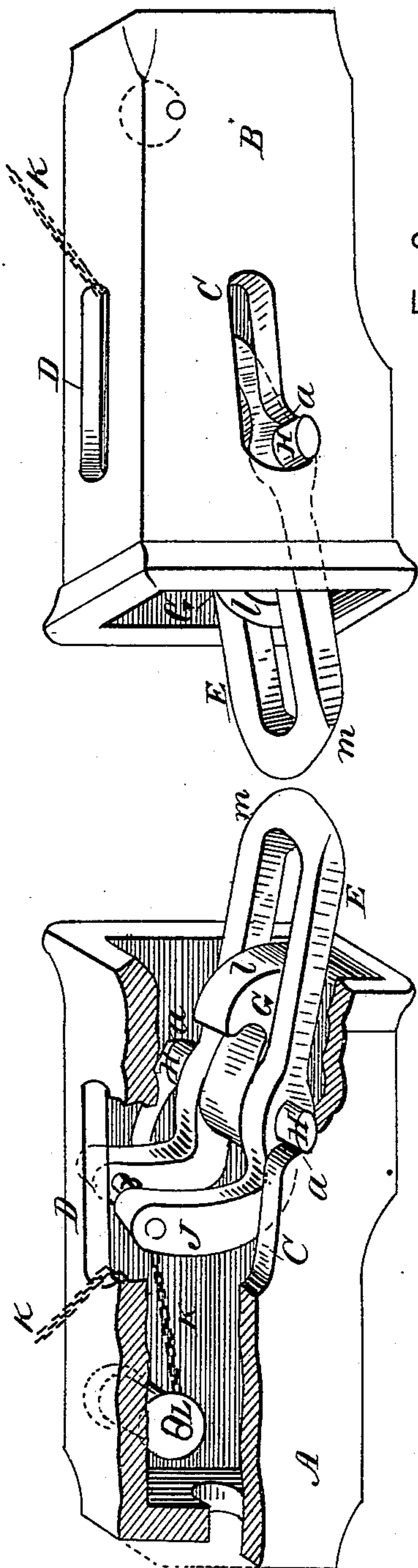


Fig. 2.

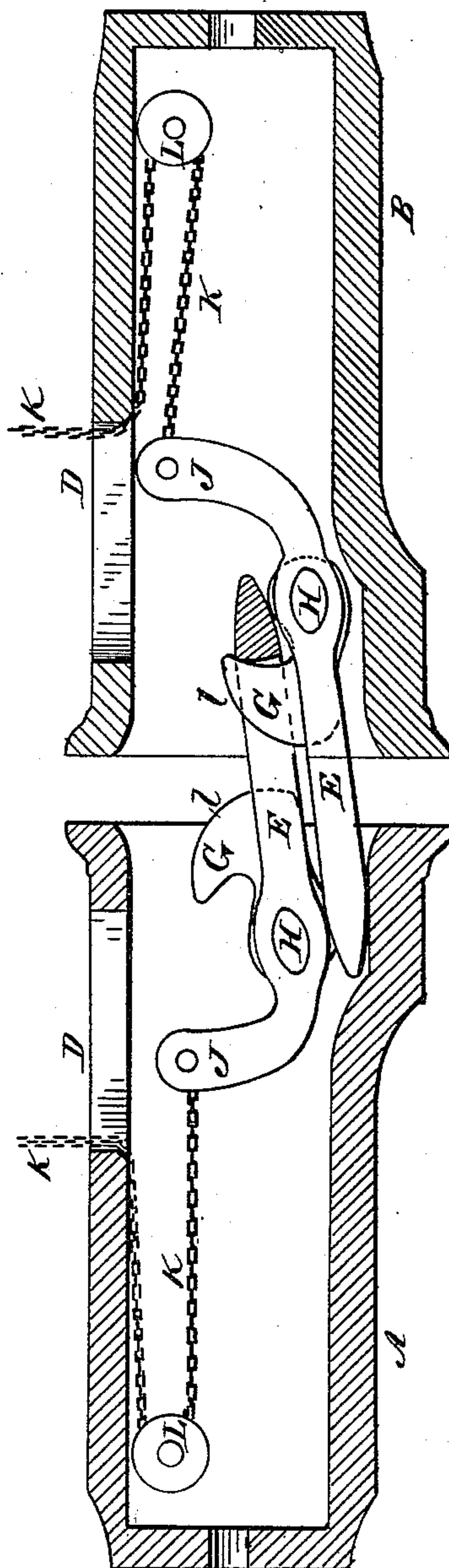


Fig. 3.

Witnesses.
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UNITED STATES PATENT OFFICE.

HENRY MITCHELL, OF BOSTON, MASSACHUSETTS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 259,331, dated June 13, 1882.

Application filed May 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, HENRY MITCHELL, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Car-Couplers, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figures 1 and 2 are isometrical perspective views, showing the two sections of the coupler disconnected, (a part of the draw-bar head being represented as removed in Fig. 1;) and Fig. 3, a vertical longitudinal section, showing the coupler interlocked or connected.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to that class of car-couplers which are automatic or self-coupling; and it consists in a novel construction and arrangement of parts, as hereinafter more fully set forth and claimed, by which a more effective device of this character is produced than is now in ordinary use.

In the drawings, A B represent the draw-bar heads, which are hollow, and respectively provided at the sides with two inclined cam-shaped slots and at the top with an elongated opening, D. Disposed in each of these heads there is a link, E, and upwardly-turned hook G, the link and hook being both mounted on the same shaft, H, and pivoted or journaled in the slots C, as best shown in Fig. 1. The shaft is oval in cross-section, and is arranged as best seen in Figs. 1 and 2, its ends resting in the drop or depressions *a a* in the forward end of the slot when the links protrude from the heads to their fullest extent. The inner ends of the links turn upward to form the trip-levers J, and are provided with a chain or cord, K, which passes under and around the pulley or sheave L, and thence upward through the opening D to the top of the car. The outer ends, *m m*, of the links are flattened or wedge-shaped, being constructed in this form to enable one link to ride over the other as the draw-bar heads come together in coupling. The outer surface, *l*, of the hook G is also inclined or rounded, so that the link will pass over it readily.

In the use of my improvement, the links

being first withdrawn so as to protrude, as shown in Figs. 1 and 2, the cars to be coupled are backed up or brought together in the usual manner, the ends *m m* of the links E coming into contact and riding one over the other until the uppermost link strikes the outer face of the hook G in the opposite head, over which it passes and becomes interlocked therewith, as shown in Fig. 3, thus connecting or coupling the cars in a manner which will be readily understood by all conversant with such matters without a more explicit description. The outer ends of the links E are heavier than the lever ends J, thus keeping the exposed ends depressed when the cars are not coupled, or in a proper position for coupling.

In case one of the cars to be coupled is lower than the other, or so low as to bring the end of one of the draw-bar heads against the opposite link, the link and hook will be forced back thereby into the head, and thus prevent the link from being bent or broken, the journals of the shaft H sliding upward and backward in the slot C to permit this action of the parts, as described.

The rod H is made oval for two purposes, viz: first, to connect the link and hook in such a manner that neither can turn or revolve thereon; and, second, to enable the journals to slide easily in the slots C when the link and hook are pushed inward, as described.

To uncouple the cars, the chain K is pulled by the brakeman on the top of the train, depressing the lever J and elevating the outer end, *m*, of the link to which the chain is attached, thus detaching or disconnecting it from the hook.

It will be obvious that it makes no difference which of the links overrides the other, the coupling being accomplished with equal certainty and without incurring the necessity or danger of passing between the cars to either couple or uncouple the same.

Having thus explained my invention, what I claim is—

The improved car-coupler described, the same consisting of the draw-bar heads A B, links E, hooks G, pulley L, and chain K, when constructed and arranged to operate substantially as specified.

HENRY MITCHELL.

Witnesses:

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