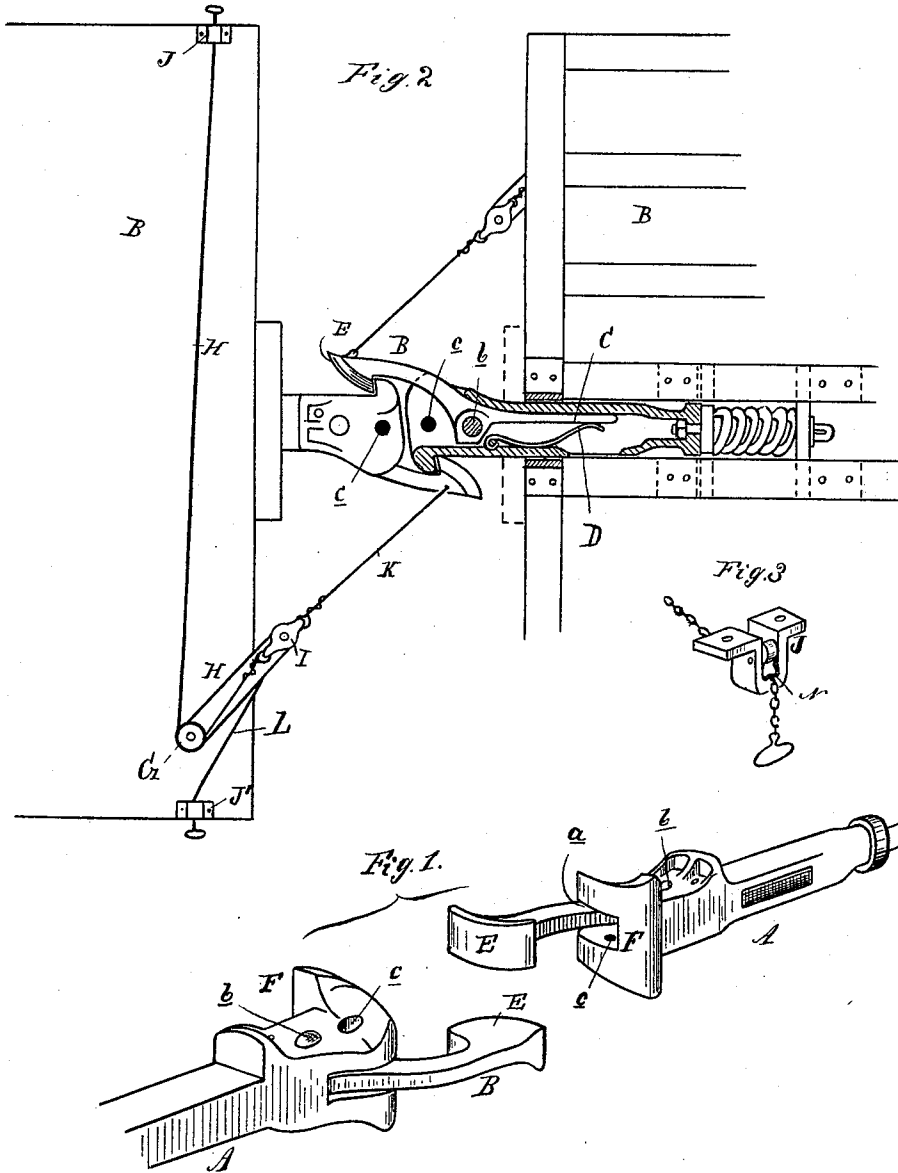


(No Model.)

E. HOWE.
CAR COUPLING.

No. 326,741.

Patented Sept. 22, 1885.



Attest:
John Schuman.
[Signature]

Inventor:
Edward Howe.
by his atty
[Signature]

UNITED STATES PATENT OFFICE.

EDWARD HOWE, OF DETROIT, MICHIGAN, ASSIGNOR OF THREE-FOURTHS
TO MARTIN SCHOLL, JR., OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 326,741, dated September 22, 1885.

Application filed June 25, 1885. (No model.)

To all whom it may concern:

Be it known that I, EDWARD HOWE, of Detroit, in the county of Wayne and State of Michigan, have invented new and useful Improvements in Car-Couplers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain new and novel improvements in car-couplers; and the invention consists in the peculiar construction of the draw-head and coupling-hooks, whereby all necessary vertical play to the parts is obtained for coupling with cars of varying height, such vertical play not being limited by the closed mouth of the draw-head; in the peculiar construction of the coupling-hooks, and in the construction, arrangement, and combinations of the parts, all as more fully hereinafter set forth.

Figure 1 is a perspective view of two of my improved devices uncoupled. Fig. 2 is a plan view with one coupler in horizontal section, and showing parts engaged. Fig. 3 is a perspective of the stirrup and dog for securing the uncoupling chain or cable.

In the accompanying drawings, which form a part of this specification, A A represent two draw-heads designed to be attached to the cars B in any of the known ways. These draw-heads being duplicates of each other, I will confine my further description to but one. The draw-head A is provided with a throat or mouth, *a*, one side wall of which is cut away, as shown, so as to allow of a free and extended lateral sweep of the coupling-bar B, which is pivotally secured within the draw-head by means of a pin, *b*. The inwardly-projecting end C of the coupling-bar has interposed between it and the side wall of the draw-head a spring, D, for retaining the hook in a position to couple with the head of an approaching car and to retain it in such coupled position, as is clearly shown in Fig. 2. The outer end of the coupling-bar is provided with a hook-shaped head, E, which is designed to engage with the vertical hook-flange F upon the side of the draw-head.

Near one corner of the car, and preferably on the bottom thereof, I secure a pulley-block, G, around which a cable or chain, H, passes,

one end of which is secured to the sheave I, while the opposite end passes through a stirrup, J, suspended from the opposite corner of the car. The sheave I is connected to the coupling-hook by a cable, K. L is a short cable or chain, the inner edge of which is secured to the cable H, while its outer end passes through a stirrup, J'. It will readily be seen that by pulling upon the free end of either of the cables H or L the coupling-hook can easily be disengaged from the flange of the opposite head, and each of the stirrups J J' is provided with a gravity-dog, N, designed to grip the chain or cable and hold the coupling-hooks in such position that they will not couple when coming together. When the coupling-hooks are in the position shown in Fig. 1, and two cars come together, the faces of the hooks slide upon the curved faces of the opposing flanges until the hooks pass beyond such flanges, when the action of the springs compels an engagement of the parts, and the two cars are coupled together. The vertical area or length of the flanges upon the heads affords means for all necessary vertical play and facilitates the coupling with cars of varying height, and such vertical play is not limited by the contractions of the throat, as all the vertical adjustment or play is provided for outside the head.

If desired, pin-holes *c* may be made in the head, so that the head may be coupled with an ordinary link-and-pin coupling.

What I claim as my invention is—

1. In a car-coupling, the head A, having flange F, and the coupler-bar B, provided with the hook E, combined with the pulley G, sheave I, and cables H K L, and stirrups J J', all arranged and operating substantially in the manner and for the purposes specified.

2. In a car-coupler, the combination of the head A, coupler-bar B, provided with the hook E, spring D, flange F, pulley G, sheave I, cables H, K, and L, and stirrups J J', provided with the gravity-dogs N, all combined and operating substantially in the manner and for the purposes specified.

EDWARD HOWE.

Witnesses:

H. S. SPRAGUE,
E. J. SCULLY.