

(No Model.)

E. GLOVER.
CAR COUPLING.

No. 254,001.

Patented Feb. 21, 1882.

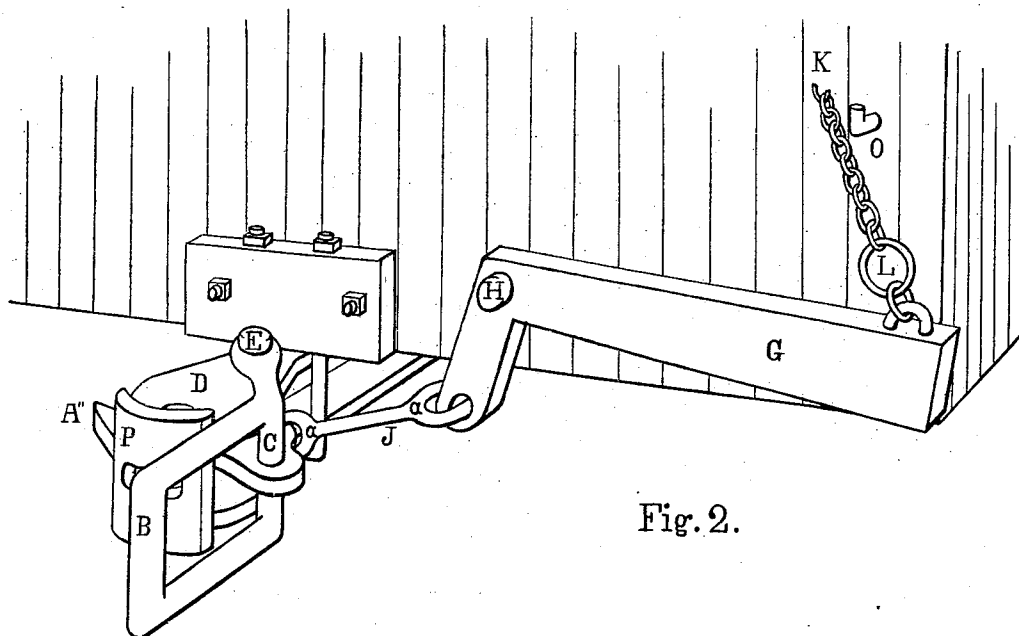


Fig. 2.

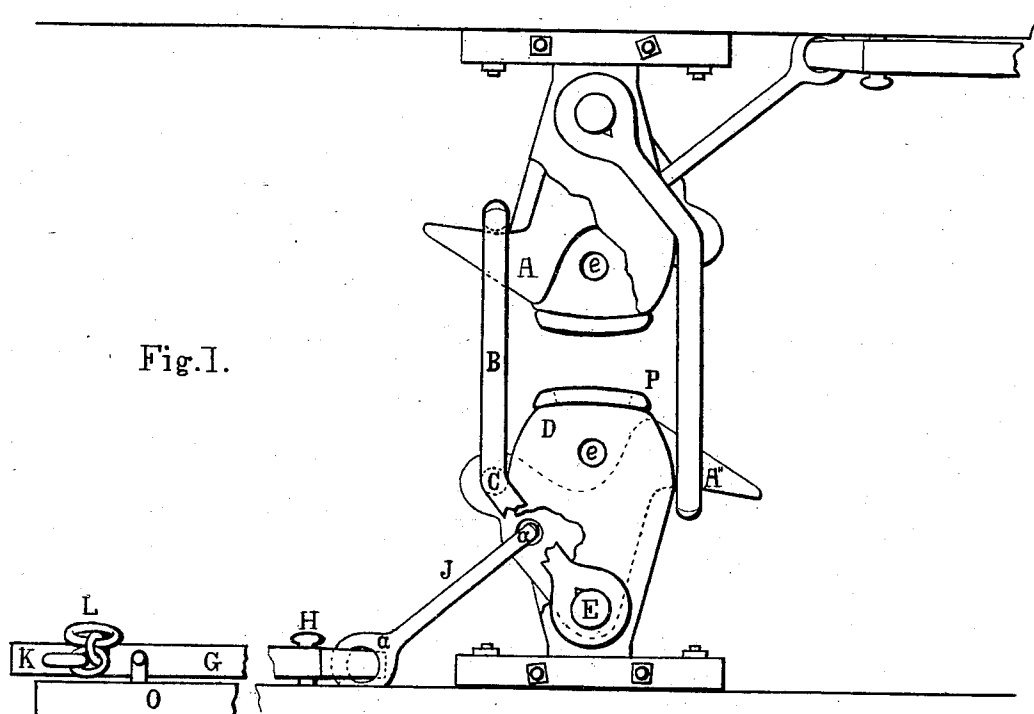


Fig. 1.

WITNESSES:

S. G. Nottingham
W. C. Berkeley

INVENTOR

Elliot Glover

BY *Suppett & Nottingham*

ATTORNEYS

UNITED STATES PATENT OFFICE.

ELLIOT GLOVER, OF CORTLAND, NEW YORK.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 254,001, dated February 21, 1882.

Application filed December 19, 1881. (No model.)

To all whom it may concern:

Be it known that I, ELLIOT GLOVER, a citizen of the United States, residing at Cortland, in the county of Cortland and State of New York, have invented certain new and useful Improvements in Car-Couplers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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 the letters or figures of reference marked thereon, which form a part of this specification.

The objects of my invention are, first, to provide an automatic car-coupler for freight-cars, which, upon colliding with a similar contrivance, shall unite with it in forming a secure and durable coupling, with sufficient lateral, vertical, and longitudinal slack, whatever may be the difference of altitude between the opposite draw-heads; and, second, to provide for unshackling the same without going between the cars by lifting a lever or drawing a chain at the side or from the top of the car, whether the cars be at rest or in motion. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top view of the coupling as it appears after the removal of a section from the top of each draw-head, and Fig. 2 is a view in perspective of either coupler preparatory to connecting automatically with the other.

The hook A'' is firmly held midway between the upper and under arms of the draw-bar B by the vertical bar C, while both hook and draw-bar are secured to the draw-head D by the pin E, upon which they turn during the operations of coupling and uncoupling or when required by the motion of the cars.

In front of the vertical bar C the upper and under arms of the draw-bar B may be constructed with so much space between them as will enable the coupler of which they form a part to connect with any similar contrivance, whatever shall be the difference of altitude between the opposite draw-heads at the time of colliding.

The lever G is secured to the end of the car by the pin H, upon which it turns during the

operations of coupling and uncoupling or when required by the motion of the cars.

The rod J connects the hook A'' with the short arm of the lever G by means of loose joints a a.

The chain K, in which is a ring, L, extends from the handle of the lever G to the top of the car.

The small hook O projects from the end of the car for the purpose of supporting the handle of the lever G when the coupler is out of gear.

The bumper and draw-head, being substantially like those in present use, are adapted, by an opening in the bumper P and by holes e e through the top and bottom of the draw-head D, for connecting by link and pin with couplers now in use.

In the construction of all the parts of my invention I make use of materials of such size and strength as will stand all the strains to which the invention will be subjected in the use for which it is intended.

Having thus described the construction of my invention, I will now proceed to describe its use and operation.

When one of my couplers comes in contact with a similar contrivance the front of the draw-bar B slides along the outer edge of the opposite hook, A, until it passes beyond the point of said hook, whereupon the lever G, which has meantime been lifted by the simultaneous lateral motion of the combined draw-bar B and hook A'' acting through the rod J, suddenly drops, thereby forcing the draw-bar B and hook A'' into the position indicated in Fig. 1. A similar and reciprocal operation having meantime been performed by the respective parts of the opposite coupler, the result is a strong and reliable coupling with sufficient lateral, vertical, and longitudinal slack.

To uncouple, it is necessary to touch but one of the couplers, lift the lever G, either with the hand at the side of the car or by pulling up the chain K from the top of the car, and hang the ring L on the small hook O. The opposite coupler will retain position shown by Fig. 2 while the cars are moving apart. Before coupling again, whichever coupler has been thrown out of gear by the operation of

uncoupling must be released from the small hook O and resume position shown by Fig. 2.

I am aware that prior to my invention automatic car-couplers have been made with reciprocating side hook and draw-bar operating in conjunction with draw-head and bumper. I therefore do not claim such a combination, broadly; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. An automatic car-coupler in which side hook and draw-bar are firmly united, and are attached to a draw-head by a single pin, on which they turn in unison, substantially as set forth.

2. The duplex draw-bars B, arranged as shown, and the hooks A A², combined with the lever G and connections, as and for the purposes set forth.

3. The draw-bars B, having vertical arms C, and the hooks A A², arranged in pairs, and each pair secured to the draw-bar by a single pivot, E, combined with the link J, lever G, and chain K, as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ELLIOT GLOVER.

Witnesses:

CATHARINE GLOVER,
D. E. SMITH.