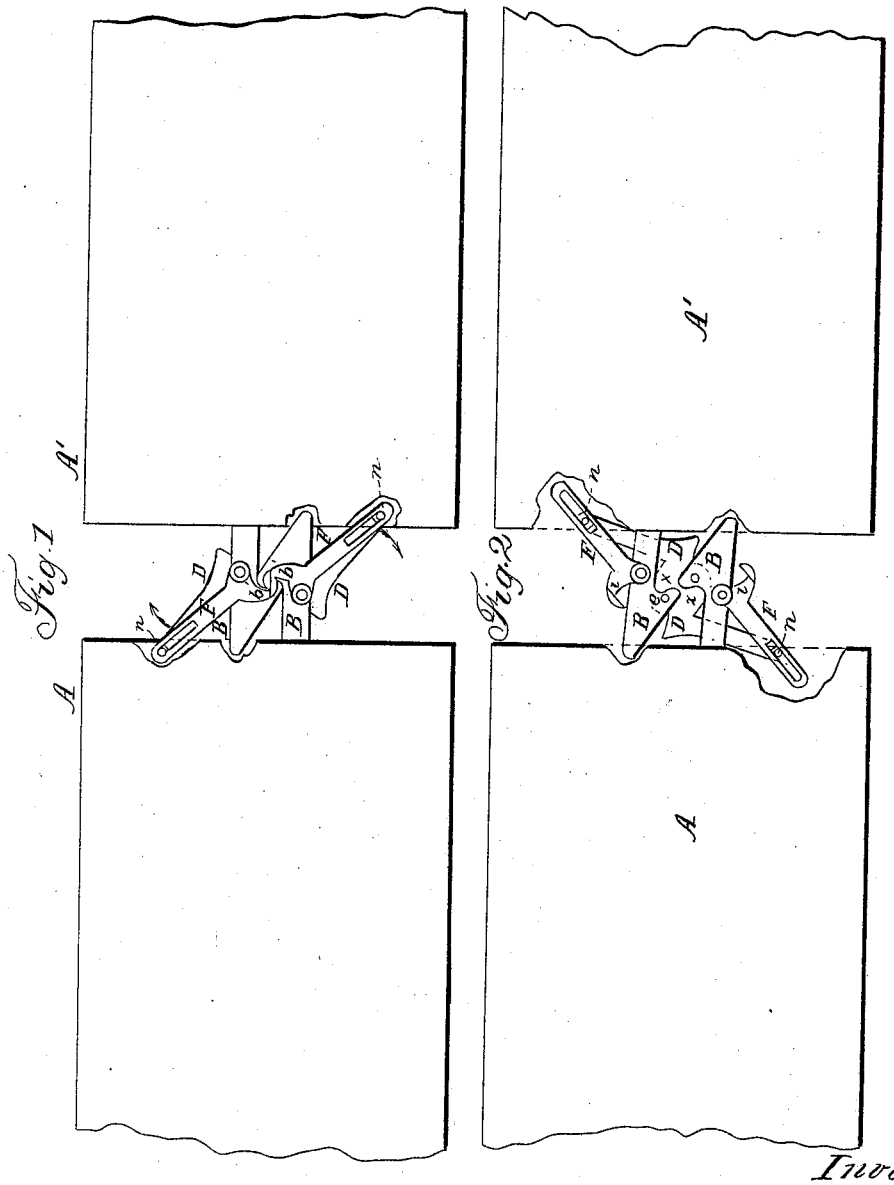
2 Sheets—Sheet 1.

NEWELL & SIMMERMAN.

Car Coupling.

No. 52,736. Patented Feb. 20, 1866.



Witnesses.
Wm Albert Stiel
John Parker

Inventor.
W J Newell
J S Simmerman
By their Atty
H C Howson

2 Sheets—Sheet 2.

NEWELL & SIMMERMAN.

Car Coupling.

No. 52,736. Patented Feb. 20, 1866

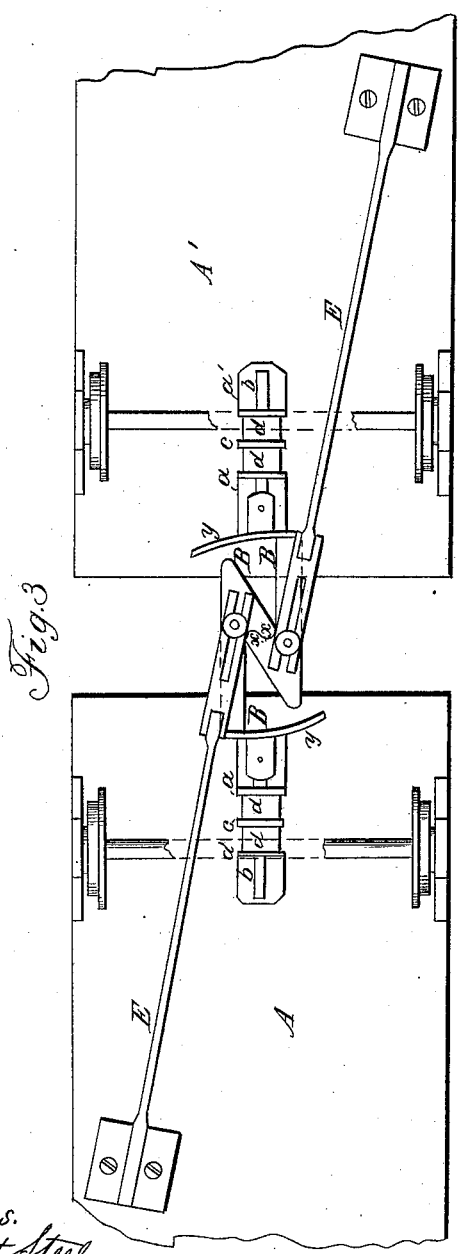


Fig. 3

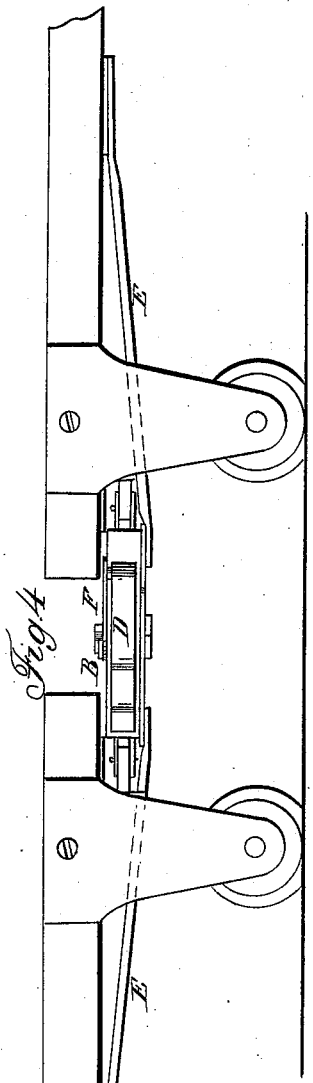


Fig. 4

Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM L. NEWELL AND JACOB S. SIMMERMAN, OF MILLVILLE, N. J.

IMPROVED CAR-COUPLING.

Specification forming part of Letters Patent No. **52,736**, dated February 20, 1866.

To all whom it may concern:

Be it known that we, WM. L. NEWELL and JACOB S. SIMMERMAN, of Millville, Cumberland county, New Jersey, have invented an Improved Car-Coupling; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Our invention consists of certain arms and levers constructed, applied to railway-cars, and operating substantially as described hereinafter, so that the cars may be self-coupling and readily released when desired.

In order to enable others skilled in the art to make and use our invention, we will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figures 1 and 2 are plan views, representing parts of two cars with our improved coupling: Fig. 3, an inverted plan view, and Fig. 4 a side view.

Similar letters refer to similar parts throughout the several views.

A and A′ are the adjacent ends of two cars, and at the under side of each car, near the end of the same, are two hangers, *a a′*, in which slides a rod, *b*, carrying a disk, *c*, and between the latter and each hanger *a a′* is confined a suitable spring, *d*.

To the outer end of each rod *b* is jointed an arm, B, which has an inclined outer end and a hooked shoulder, *x*. A pin at the under side of each arm B projects into a slot at one end of a spring-rod, E, the latter being secured at the opposite end to the under side of the car, and tending to maintain the arm in the position shown in Fig. 3.

Each arm B is slotted to admit an L-shaped lever, D, which is connected by a pin, *e*, to the hooked end *x* of the said arm B, the long arm of the lever projecting beyond the outer edge of the arm B, as shown in Fig. 1.

To the upper side of each arm B is hung a lever, F, the short arm of which is bent into the form of a hook, *i*, the long arm having a slot into which projects a pin, *n*, at the end of the lever N.

As the trucks A A′ are moved toward each other the inclined ends of the opposite arms, B, are brought into contact, and each arm is moved slightly to one side until the hooked ends *x x* pass each other, when the spring-rods E will bring the arms together, the hooked end *x* of one arm catching the hooked end of the other arm, as seen in Fig. 3, the levers D D being also brought into contact and turned, together with the levers F, until the short arms I of the latter are interlocked, as shown in Fig. 1.

It will be seen that as the hook *x* of one arm B bears against that of the opposite arm the two cannot be separated without moving them laterally in opposite directions, and that such a movement of the arms is effectually prevented by the interlocked arms *i i* of the levers F.

When it is desired to uncouple the cars the attendant, by means of a cord connected to the long arm of one of the levers F, or otherwise, turns the latter in the direction of its arrow, Fig. 1, (and thus also turns the levers D in the same direction,) until their hooked ends are moved from contact with each other. As the bent levers D are turned their inclined portions are brought into contact with each other, and the arms B are consequently separated, as shown in Fig. 2, until their hooks *x x* are no longer in contact, when the trucks may be moved away from each other.

By the use of the above-described apparatus the operation of coupling the cars may be performed in an instant by merely bringing the cars together, and the manipulation required and delay incurred when the old link-coupling is used may thus be obviated. When thus coupled together there is no fear of the arms B B becoming disconnected by the agitation to which all couplings are subjected, as they are effectually locked together by the short arms *i i* of the levers F, and cannot become unlocked until these arms have been operated in the manner described. No impediment is offered by the coupling to the slight movement of the cars toward each other on the stoppage of a train, in which case the end of one arm B will come in contact with a projection, *y*, on the other arm, and the force of the blow will be resisted by the springs *d d*.

We claim as our invention and desire to secure by Letters Patent—

1. The inclined and hooked arms B B, com-

bined with the springs E E, or their equivalents, the whole being constructed and applied to the cars substantially as and for the purpose specified.

2. The combination of the inclined and hooked arms B B with the interlocking levers F F, the whole being constructed, applied to the cars, and operating substantially as and for the purpose herein set forth.

3. The combination of the above with the levers D D, the whole being arranged and operating substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

WM. L. NEWELL.
JACOB S. SIMMERMAN.

Witnesses:
WM. D. KEMBLE,
JAS. H. NIXON.