H. T. LOVELL.

Car-Coupling.

No. 160,057. Patented Feb. 23, 1875.

Fig. 1.

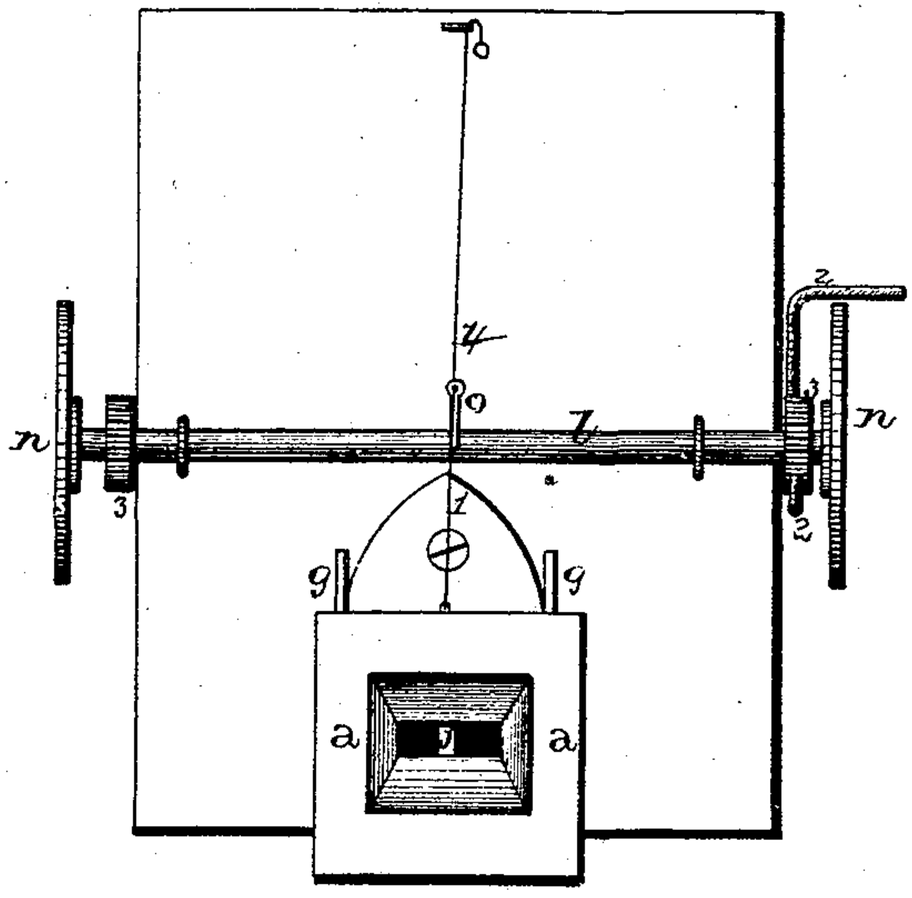


Fig. 2.

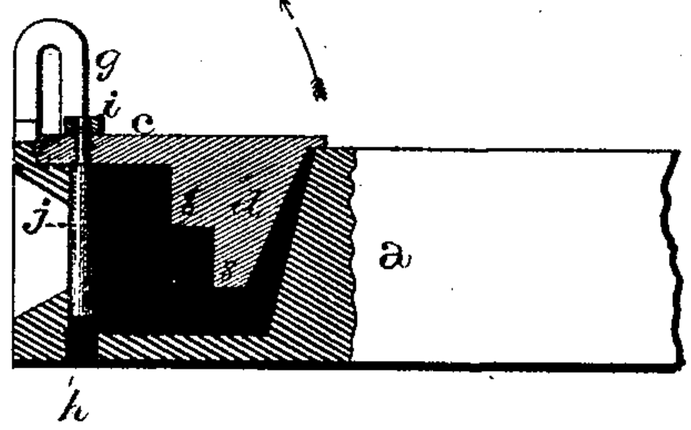
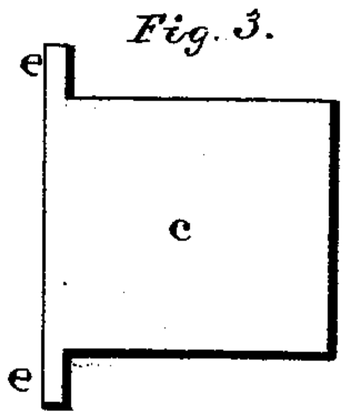


Fig. 3.



WITNESSES.

J. Wm. Garner,

W. J. Murphy

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UNITED STATES PATENT OFFICE.

HOMER T. LOVELL, OF IONIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO HENRY H. LOVELL, OF GREENVILLE, MICHIGAN.

IMPROVEMENT IN CAR-COUPLINGS.

Specification forming part of Letters Patent No. **160,057**, dated February 23, 1875; application filed July 1, 1874.

To all whom it may concern:

Be it known that I, HOMER T. LOVELL, of Ionia, in the county of Ionia and State of Michigan, have invented certain new and useful Improvements in Car-Couplings; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

The nature of my invention relates to an improvement in car-couplings; and it consists in the arrangement and combination of parts, whereby the cars can be automatically coupled together, as will be more fully described hereafter.

The accompanying drawings represent my invention.

a represents a draw-head of any suitable construction, which may be attached to the car in any desired manner. Through the top of this head is made an opening, which is covered over with the plate *c*, having cast or secured to its under side a weight, *d*, and having formed upon its two front corners the projections *e*, which extend outward through the guides *g* bolted to the draw-head. The weight *d* has any number of shoulders 8 formed upon its front side, under which the inner end of the link may be held, in order to accommodate it to coupling with cars of different heights. Passing through this plate, and secured in position by means of a nut, *i*, or other device, is the coupling-bolt *j*, which is made removable, so that, should it be accidentally broken, it can at once be taken out and one of the common pins inserted in its place, the hole *h* being made through the bottom of the head, so that the common pin can pass entirely through in the usual manner. As the pin is here shown it is somewhat thicker than the common pin, in order to form the neck which is to pass up through the hole in the plate *c*. This hole should be just large enough to receive the coupling-pins now in general use. Fastened to the ends of the car by any suitable devices are the horizontal shafts *l*, which have a hand-wheel, *n*, secured to each end, out beyond the side of the car, so that it can be operated from either side without having to step in between the cars to couple them. Extending outward from this shaft, near the center, is an arm, *o*, which has attached to its outer end a chain, 1, which has its other end fastened to the top of the plate *c*.

By turning the shaft the plate is raised vertically upward, so as to disengage the link and uncouple the cars.

When it is desirable that the car should not couple with others the plate is raised upward, and held in that position by means of the pawl 2 and ratchet 3.

By fastening a chain, 4, to the end of the arm *o* and passing the chain up to the top of the car the link can be uncoupled from the top as well as the side of the car. When the cars are run together the end of the link strikes the pin, and forces it upward and back until the link passes under the end of the pin, when the weight causes the plate to instantly drop back into position.

I am aware that guides similar to those here shown have been used before; and these I disclaim.

Having thus described my invention, I claim—

The combination of the head *a*, having an opening through its top, and hole *h*, the plate *c*, having weight *d* and projections *e*, pin *j*, and the guides *g*, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of June, 1874.

HOMER T. LOVELL.

Witnesses:

LOUIS S. LOVELL,

MARY S. LOVELL.