

G. R. MOORE.
CAR-COUPLING.

No. 184,214.

Patented Nov. 7, 1876.

Fig. 1

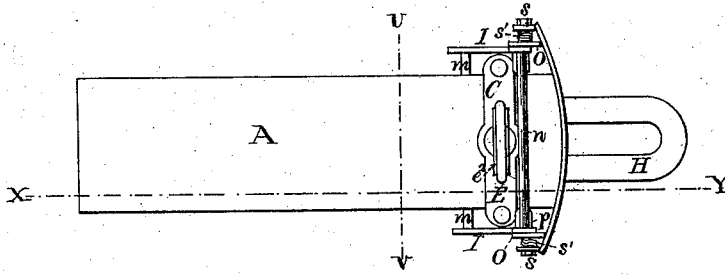


Fig. 2.

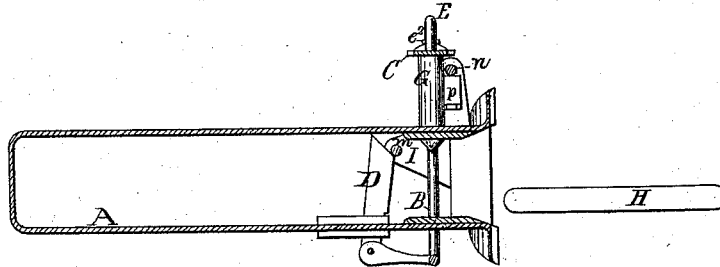


Fig. 3.

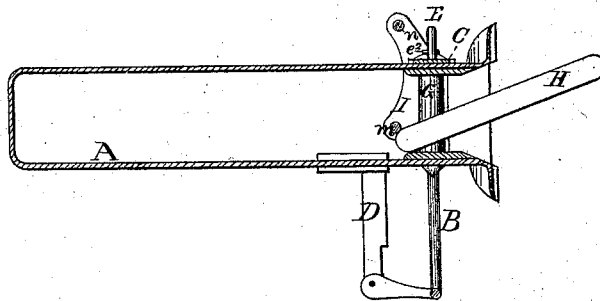
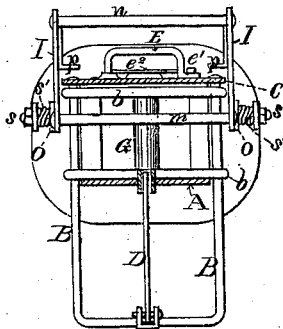


Fig. 4.



Witnesses

Edward Brown
John S. Grant

Inventor

Geo. R. Moore

UNITED STATES PATENT OFFICE

GEORGE R. MOORE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CAR-COUPINGS.

Specification forming part of Letters Patent No. **184,214**, dated November 7, 1876; application filed April 16, 1874.

To all whom it may concern:

Be it known that I, GEO. R. MOORE, of the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a Car-Coupling, of which the following is a specification:

The object of my invention is to provide improved instrumentalities for operating the link and pin used in coupling cars, so that the operator need not stand between the cars at the time of junction for coupling.

The accompanying drawings show an ordinary draw-head, in which link and pin are used, with my improvements applied.

Figure 1 is a top view. Figs. 2 and 3 are sectional side views taken in the line *xy* of Fig. 1. Fig. 4 is a sectional end view taken in the line *uv* of Fig. 1.

A is the draw-head; B and C, frame-work for carrying the pin and trigger; *b b*, guides to this frame-work; D, trigger for holding up the frame-work which carries the pin, and for discharging the same in coupling. It passes up through a slot in A, where it latches forward, as seen in Fig. 2. It is operated by a spring below its heel. E is a handle upon C, for lifting the frame-work which carries the pin. It is designed to be so constructed that while in ordinary use it confines the pin G in its place in C, it may, when desired, be turned one side to allow the insertion or removal of the pin. *e¹* represents a nib under which it may be latched, and *e²* is a plate bearing directly on the head of the pin. The object of this mode of constructing E in combination with C is, that the pin G may be more cheaply manufactured than it can be in the usual form, with a ring attached for lifting it. By this construction of E in combination with C the pin G requires but a rivet-head, so that its cost of manufacture is very trifling. G is the pin; H, the link. I is a lever, in this case alike on both sides of the draw-head, constituting, with its connections, a link-holder, in which *m* is a pressure-bar for direct contact with the link, to hold it down, as seen in Fig. 3. It is operated by hand, and its force to hold may be regulated to any required degree by friction. It is pivoted to the draw-head at S, as seen in Figs. 1 and 4. It is designed that S should be an ad-

justable screw, in order to adjust the spring S' upon O, which is a friction-plate, not permitted to turn upon S, but free to move upon I, the object being to provide sufficient friction to hold the inner end of the link down, as seen in Fig. 3. Without this intervening friction-plate O between I and S, S would be liable to be loosened by the turning of I in its proper use. *n* is a bar in combination with lever I and pressure-bar *m*, constituting a convenient handle for their use. P P are stays, to prevent the lifting of the pin while the pressure-bar *m* is down upon the link, it being desirable always to have this pressure-bar up whenever the pin is, so that it may never be exposed to the incoming link. In this regard and for this object the pin-carriage and the link-holder are so combined that the pin will never be up unless the link-holder is up also.

The operation of this coupling is obvious. On the part of the two draw-heads to be coupled, respectively, the one is to be in condition for receiving the link and inserting the pin at the moment of junction, and the other is to be in condition for carrying the link and keeping it up until it shall enter the other draw-head and touch the trigger D, which then releases the upheld pin, causing it to fall instantly and complete the coupling. The operator, having seen that the pin in one draw-head is up, and the link in the other properly directed and clamped by the link-holder pressed down upon it, stands aside, and when the draw-heads come together they will couple automatically. Now, observe that the link-holder, upon the slightest excess of force from the link, will be raised up to whatever height the link inclines to go, and there it will remain, so that this link-holder can never be a source of wear and needless pressure upon the link after the cars are coupled. The link having by one forcible motion removed it out of the way, it remains away until called again into use for another act of coupling.

I claim as my invention—

1. The clamping-bar *m*, passing over the link to hold it down by pressure, and operated by the lever I, in combination with the draw-head, substantially as shown.

2. The screw S and spring S', for graduating the frictional power of the clamp upon the link, in combination with I and *m*, substantially as shown.

3. The friction-plate O between I and S, substantially as shown.

4. The cross-bar *n*, in combination with I and *m*, substantially as shown.

5. The stays P P, for preventing the raising of the pin when the clamp is down, substantially as shown.

GEO. R. MOORE.

Witnesses:

J. PLANKINTON,
JOHN W. MIDDLETON.