

(No Model.)

P. E. MERRIHEW & M. C. & E. F. POLAND.

CAR COUPLING.

No. 290,086.

Patented Dec. 11, 1883.

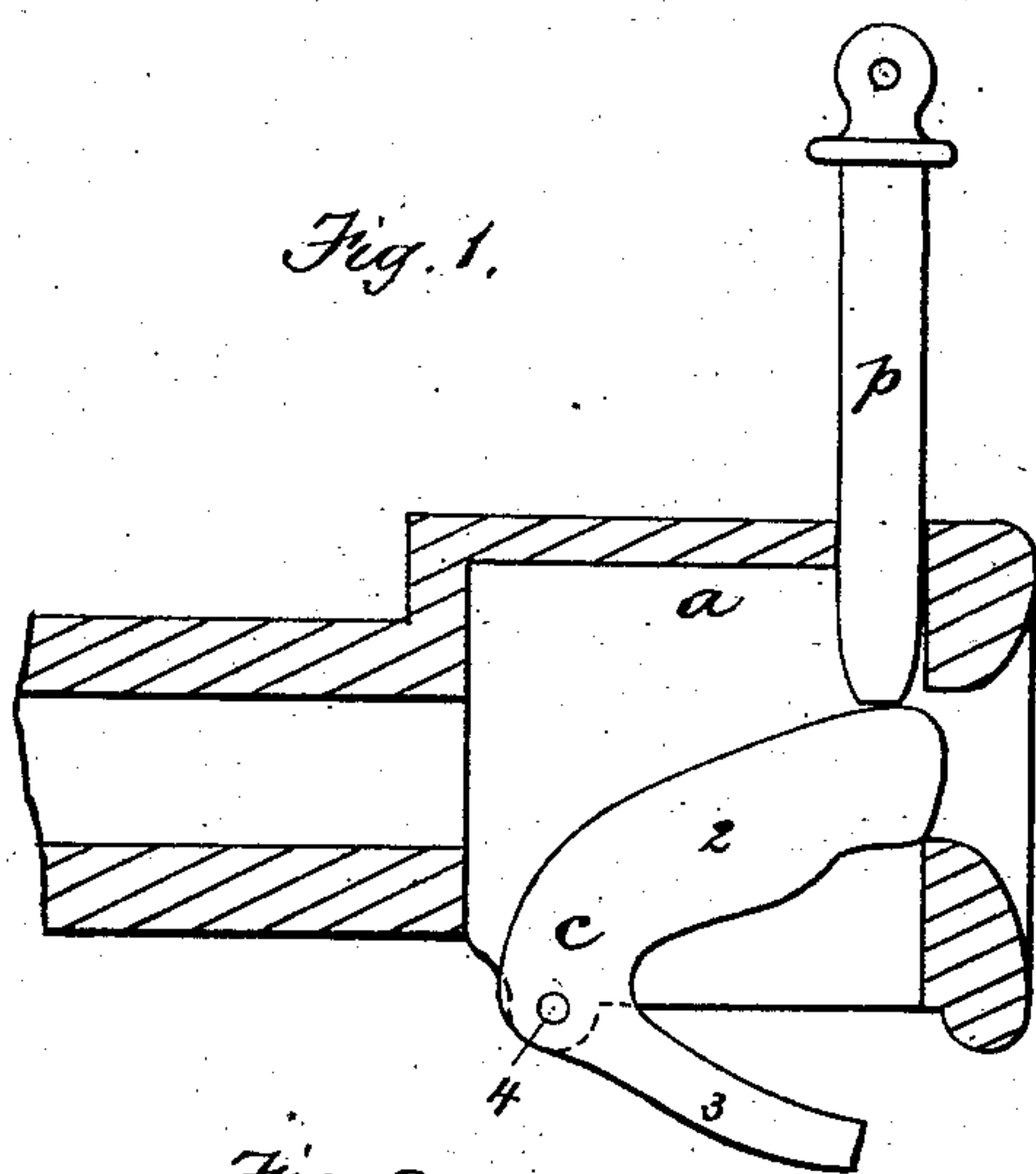
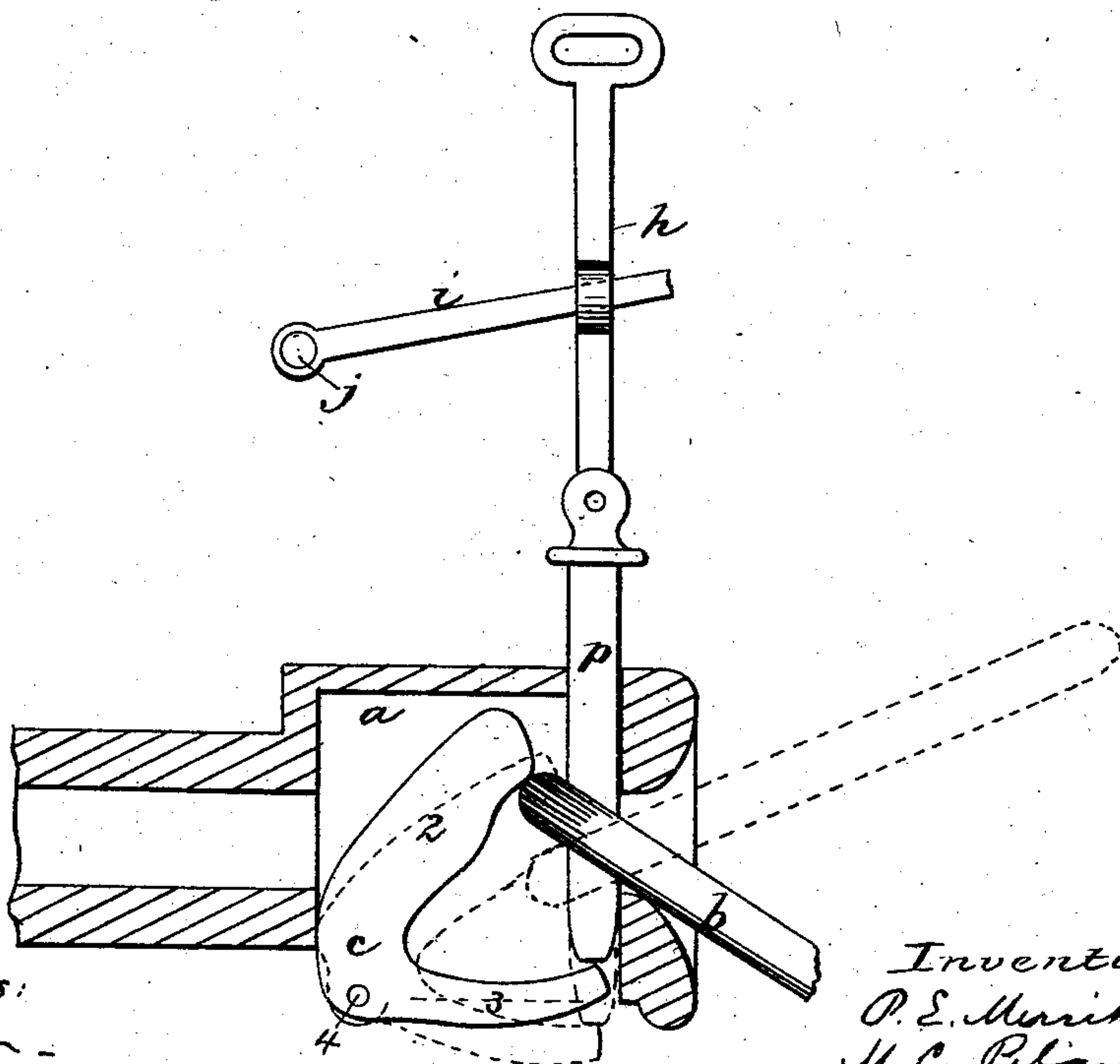


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

PHINEAS E. MERRIHEW, OF FAIRHAVEN, AND MELVILLE C. POLAND AND EDWARD F. POLAND, OF BOSTON, MASSACHUSETTS; SAID POLAND AND POLAND ASSIGNORS TO SAID MERRIHEW.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 290,086, dated December 11, 1883.

Application filed March 1, 1883. (No model.)

To all whom it may concern:

Be it known that we, PHINEAS E. MERRIHEW, of Fairhaven, county of Plymouth, and MELVILLE C. POLAND and EDWARD F. POLAND, both of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Car-Couplings, of which the following is a specification.

This invention has for its object to provide the draw-head of a car-coupling with an attachment adapted to hold up the coupling-pin until the entrance of the link into the draw-head, and then allow the pin to drop into the link; and also adapted to enable the inclination of a coupling-link from the draw-head, to which it is secured by the coupling-pin, to be varied by moving the pin upwardly or downwardly in the draw-head, so that the link can be guided to enter a higher or lower draw-head on another car, without the necessity of the attendant standing between the cars to guide the link, the pin being provided with means whereby a person standing at one side or at the top of the car can raise or lower the pin, and thus vary the inclination of the link.

Our invention consists in the improved attachment, which we will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a longitudinal vertical section of a draw-head provided with our improvement before the link is introduced. Fig. 2 represents a similar section, showing the link introduced into the draw-head.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents a draw-head having a contracted mouth for the reception of the link *b*, and an internal cavity or chamber extending above and below said mouth, so that the link can be inclined either upwardly or downwardly from the draw-head.

c represents our improved attachment, which is composed of a lever having arms 2 3, and pivoted at 4 to the lower portion of the draw-head. When the link is out of the draw-head, the arm 2 of the lever rests by its own weight against the lower side of the mouth of the draw-

head and supports the coupling-pin *p* in a raised position, as shown in Fig. 1, the arm 2 at the same time projecting forward under the hole into which the pin falls. When the link enters the draw-head, it strikes the arm 2, and turning the lever *c* on its pivot forces the arm 2 backwardly from under the pin *p*, thus allowing the latter to drop through the link, and forces the arm 3 upwardly, so that it will bear against the lower end of the pin, as shown in Fig. 2. The link being fulcrumed on the contracted mouth of the draw-head, now presses upwardly at its inner end against the inclined forward edge of the arm 2, the upper end of said arm projecting somewhat over the end of the link, so that the latter, by its pressure against the arm 2, presses the arm 3 upwardly against the lower end of the coupling-pin, and is held down at its inner end by the arm 2, and prevented from tipping upwardly, excepting as permitted by said arm. The coupling-pin is pivoted at its upper end to a rod, *h*, which is adapted to be moved up or down to raise or depress the pin by any suitable means—for example, by being extended to the top of the car, (if a freight-car,) and there provided with a handle adapted to be grasped by a brakeman on the roof of the car, or at any point above the draw-head, or by being pivoted to an arm, *i*, on a horizontal rock shaft, *j*, journaled in bearings on the end of the car, and adapted to be operated from one or both sides of the car.

It will be seen that when the link is in place in the draw-head and is free at its other end, the pin, when raised, will permit the link to tip upwardly at its inner end and turn the lever *c* on its pivot as far as the upward movement of the pin will permit, thus giving the link any desired downward inclination from the draw-head. When the pin is pushed downwardly, it will turn the lever *c* on its pivot and cause the arm 2 to depress the inner end of the link, and thus give the latter any desired upward inclination from the draw-head, as shown in dotted lines in Fig. 2. All necessity of going between the cars when they are being coupled is thus avoided.

We claim—

1. The combination, with the draw-head having a contracted mouth and an internal chamber, formed as described, of the pivoted lever *c*, having arm 2, adapted, when the lever is in its normal position, to support the coupling-pin in an elevated position, to be displaced by the entrance of the link into the draw-head, and thereafter to support the inner end of the link, and the arm 3, adapted, when the lever is displaced from its normal position, to be pressed by the weight of the link upwardly against the lower end of the coupling-pin, whereby when the pin is adjusted vertically the arm 2 will be correspondingly adjusted and caused to vary the inclination of the link, as set forth.

2. The combination of the draw-head, the pivoted lever *c*, having the arm 2, adapted to support the inner end of the link, and the arm

3, adapted to be pressed by the weight of the link upwardly against the lower end of the coupling-pin, and operating devices, substantially as described, whereby an attendant at the side or top of the car is enabled to vary the inclination of the link by moving the pin vertically, as set forth.

In testimony whereof we have signed our names to this specification, in the presence of two subscribing witnesses, this 20th day of February, 1883.

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MELVILLE C. POLAND.
EDWARD F. POLAND.

Witnesses:

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