

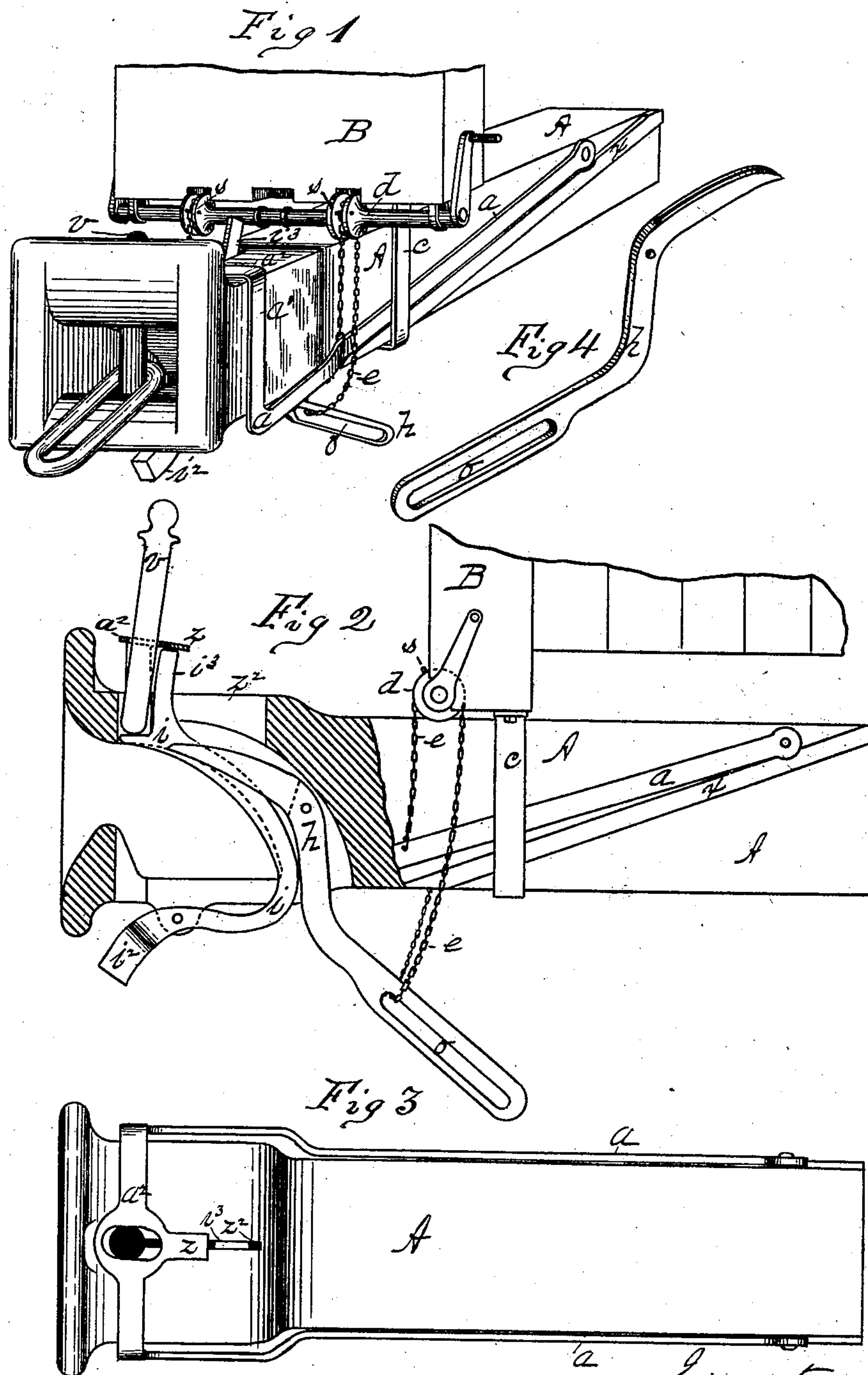
(No Model.)

D. P. PRESCOTT.

CAR COUPLING.

No. 253,554.

Patented Feb. 14, 1882.



Witnesses
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 253,554, dated February 14, 1882.

Application filed July 18, 1881. (No model.)

To all whom it may concern:

Be it known that I, DANIEL P. PRESCOTT, a citizen of the United States, residing at Vernon, in the county of Windham and State of Vermont, have invented new and useful Improvements in Car-Couplings, of which the following is a specification.

This invention relates to the details of the construction of devices to be applied to ordinary pin-and-link car-couplings for elevating the end of the link outside of the draw-bar, and for lifting the pin, and for causing the pin to drop when the cars run together, the object being to provide adequate and effective devices for manipulating the pin and the link to couple and uncouple cars without obliging a person to go between the cars for that purpose.

In the drawings forming part of this specification, Figure 1 is a perspective view of a car-coupling embodying my invention. Fig. 2 is a side elevation, partly in section. Fig. 3 is a plan view of the draw-bar and the pin-lifter, and Fig. 4 is a view of the link-lever detached from the coupling.

In the drawings, A is the draw-bar. B represents a part of the end of a car. *c* is the draw-bar yoke. *d* is a transverse shaft hung on the part B. *e* is a chain secured to shaft *d*. *a* is a pin-lifter pivoted to draw-bar A. *h* is the link-lever. *i* is a pin-latch.

Like letters refer to like parts in the several figures.

I construct the draw-bar A of the coupling generally like that shown in my patent of January 11, 1881, excepting that I form slots through its upper and lower sides, just back of the edge or border of its mouth, for the purpose of introducing therethrough parts of the pin-latch *i*, and the link-lever *h* and ribs *x* are formed on its two vertical sides, so that the draw-bar yoke *c* may be kept away from said sides and permit the pin-lifter *a* to swing without interference.

The pin-lifter *a* is an iron frame, having two long arms running toward the rear end of the draw-bar A, to which it is pivoted by pins through the ends of said arms, as shown. The forward ends of said arms are united by the vertical and horizontal parts *a'* *a''* of the pin-lifter. The said horizontal part *a''* is perfora-

ted to allow the pin *v* to be put through it, and said pin-hole is larger than that through the draw-bar head. Directly back of said perforation in the pin-lifter *a* is an arm, *z*, which extends over a slot, *z'*, in the draw-bar head.

A pin-latch, *i*, having a counter-weight, *i'*, on its lower end, is pivoted on the under side of the draw-bar head. Said latch rises in a curved shape, conforming to the shape of the rear side of the mouth of said head, in which is formed a narrow recess for its reception, and its upper end runs up and forward, and can swing under the pin-hole in the upper side of the draw-bar head to the position shown in Fig. 2, and from thence back away from under said pin-hole. A vertical arm, *i''*, is secured on latch *i*, just back of its upper end, and projects up through the slot *z'* in the draw-bar head, as in Figs. 1 and 2.

The link-lever *h* is made in the form shown in Fig. 4, having its upper end bifurcated to let the pin-latch pass up between its ends, and is pivoted in draw-bar A, so that its bifurcated end can swing from the upper side of the mouth of said draw-bar downward against the end of the link as it hangs on pin *v*. The lower end of said link-lever projects below the under side of the draw-bar, runs rearwardly, as shown, and has a long transverse slot, *o*, in it, as shown.

The shaft *d* is suitably hung to the part B, so that it may be conveniently revolved by a crank on one or both ends thereof, or by a chain wound around its central portion and running to the top of a car. A chain, *e*, whose ends are secured to the long arms of the pin-lifter *a* at the sides of the draw-bar, runs over shaft *d*, and is secured thereto at *s s*, and runs under said draw-bar and through the slot *o* in the link-lever *h*.

The operation of my improvements in coupling and uncoupling cars without going between them is as follows: When the draw-bar A stands with a link in it, as seen in Fig. 1, and a car is approaching whose draw-bar is to receive the end of said link, the operator stands by the side of the car upon which is my improved coupling, and turns shaft *d* to draw up that part of chain *e* which runs under the draw-bar and through slot *o* in the link-lever *h*. This action causes the bifurcated end of said link-

lifter to swing down within the mouth of the draw-bar, and bearing upon the rear end of the link swing its outer end up to such a height as will permit it to freely enter the mouth of the draw-bar of said approaching car.

When my coupling is to receive an approaching link and operate to become automatically coupled to it shaft *d* is turned to draw up the ends of chain *e* and swing the pin-lifter up, which lifts pin *v* high enough to allow the pin-latch *i* to swing forward under the end of said pin and hold it up, and at the same time the vertical arm *i*³ on said pin-latch swings under arm *z* on the pin-lifter *a*, and prevents the latter, when shaft *d* is released, from dropping quite down, leaving it far enough up to support pin *v* in the position shown in Fig. 2, where said pin will remain until said approaching link reaches the mouth of draw-bar A, when the end of said link will strike the edge of the pin-latch *i*, swinging it back, letting pin *v* suddenly drop through the link, and swinging arm

*i*³ from under arm *z*, and letting the pin-lifter drop against the draw-bar.

As aforesaid, shaft *d* may have a chain wound around it leading to the top of a car, so that it may be operated to work the said devices by a man standing there without obliging him to descend therefrom for that purpose.

What I claim as my invention is—

1. The combination, with the draw-bar A, of the link-lever *h*, pivoted in said draw-bar and having the transverse slot *o* therein, the chain *e*, and the shaft *d*, substantially as set forth.

2. In combination, the draw-bar A, the pin-latch *i*, having the counter-weight *i*² and the arm *i*³ thereon, the pin-lifter *a*, having the arm *z* and appliances, substantially as described, for raising up said pin-lifter, substantially as set forth.

DANIEL P. PRESCOTT.

Witnesses:

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