(No Model.)

# W. P. CUTTER.

## Car-Coupling.

No. 228,042. Patented May 25, 1880.

Fig. 1.

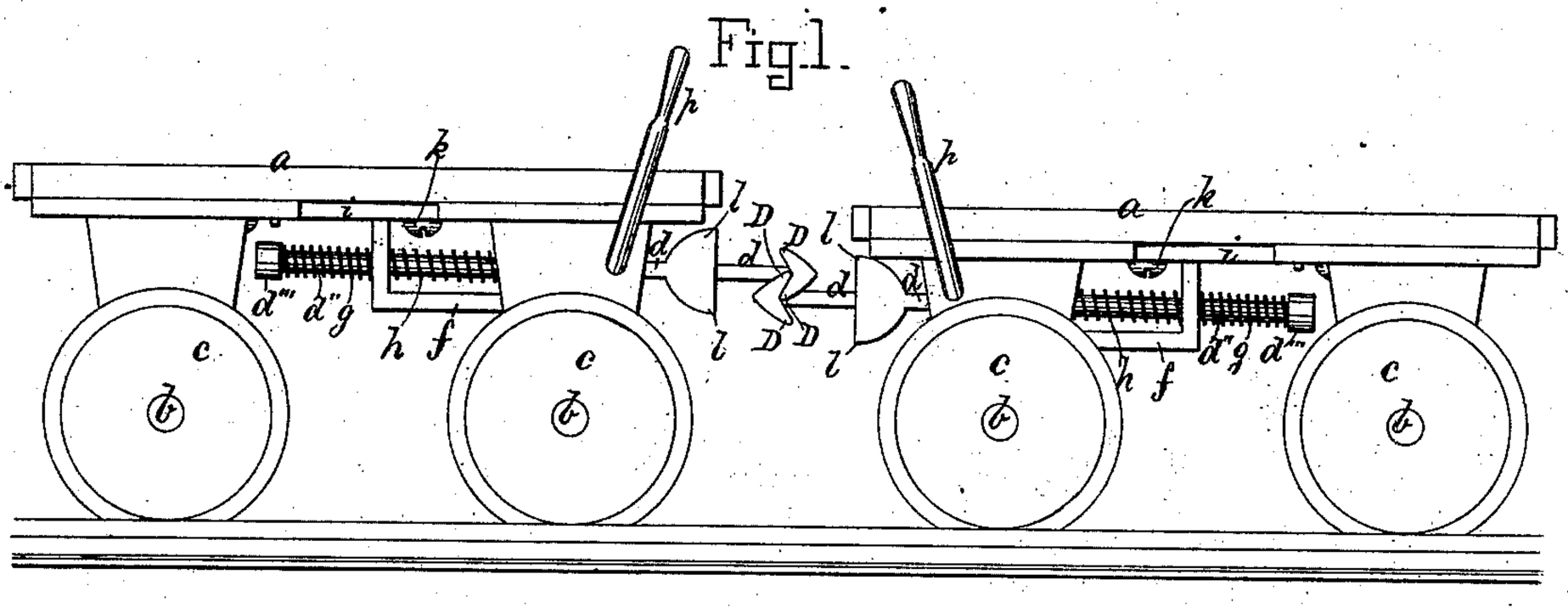



Fig. 2.

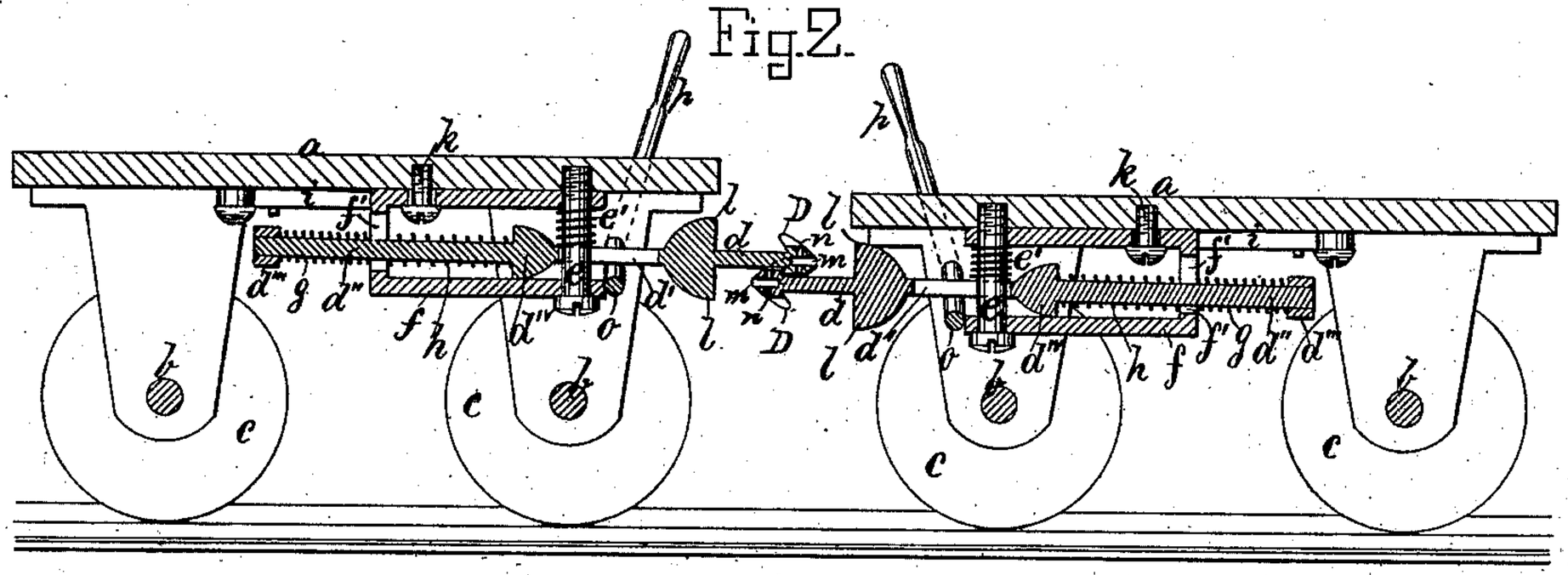



Fig. 3.

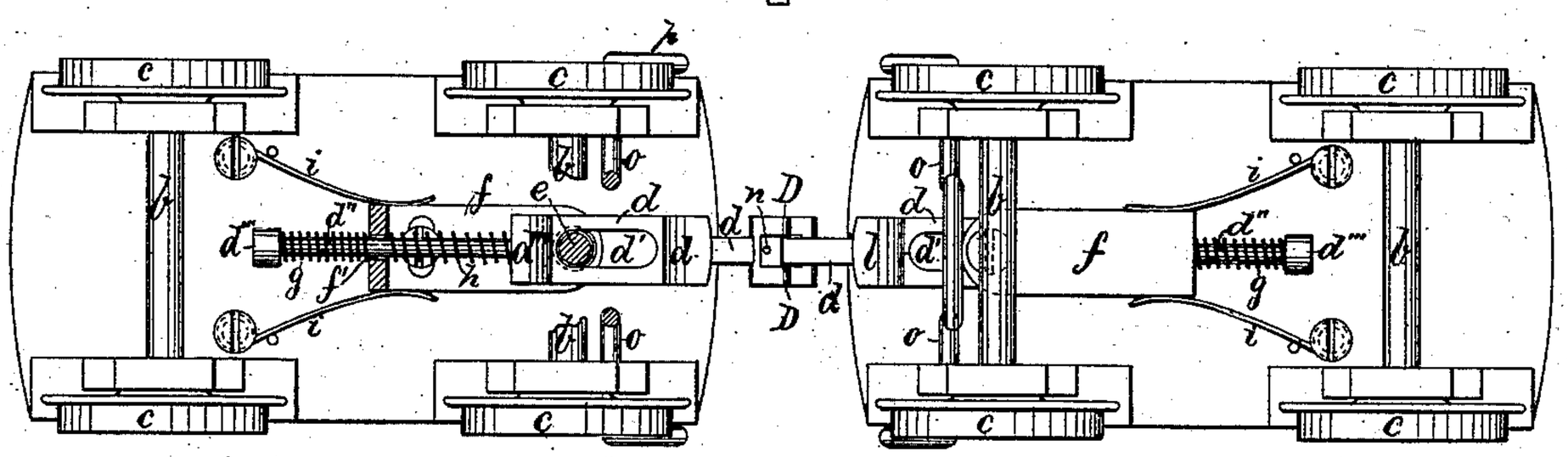
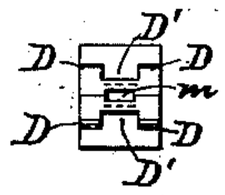



Fig. 4.




Witnesses:

Henry Chadbourn.

F. Allen.

Inventor:

William P. Cutter.

by Albert Ludrein

his atty.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

WILLIAM P. CUTTER, OF EVERETT, ASSIGNOR OF A PART OF HIS RIGHT TO JONATHAN I. HILLARD, OF BOSTON, WILLIAM A. MARTIN, OF CAMBRIDGE, AND CHARLES W. THORNDIKE, OF CHELSEA, MASSACHUSETTS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 228,042, dated May 25, 1880.

Application filed April 15, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM P. CUTTER, a citizen of the United States, residing at Everett, in the county of Middlesex and State of Massachusetts, 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in car-couplings particularly adapted for coupling freight-cars or other cars in which the distance from the platform to the rails is variable; and this invention is so made that the cars will be automatically coupled together without the need of the brakeman going between the cars, thus preventing accidents and loss of life. The uncoupling of the cars is also done without going between them by means of a suitable lever or handle on the side or top of the car.

The invention is carried out as follows, reference being had to the accompanying drawings, on which—

Figure 1 represents a side elevation, and Fig. 2 a central longitudinal section, of the invention. Fig. 3 represents a bottom view. Fig. 4 represents an end view of the locking-bar.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

*a a* represent car-platforms, with shafts *b b* and wheels *c c*, in the ordinary manner.

*d* is the draw-bar, that is jointed or pivoted to the stationary fulcrum-bolt *e*, to which is also pivoted the swinging frame *f*. A slot-hole, *d'*, is made through the draw-bar *d*, through which the bolt *e* projects, as shown, to allow for a forward-and-back motion of the draw-bar, as well as for vertical swinging motion to compensate for variations in the height of the cars that are to be coupled together.

*e'* is a spring surrounding the fulcrum-bolt *e*, as shown, its lower end pressing on the top of the draw-bar *d* for the purpose of holding the coupling together when locked. The rear end of the draw-bar *d* extends as a rod, *d''*, through the slotted perforation *f'*, in the rear of the oscillating frame *f*, as shown, which rod *d''* is provided with a pair of coiled springs, *g* and *h*, the former located between the outside of the frame *f* and a nut, *d'''*, on the end of the rod *d''*, to allow the draw-bar to yield when the cars are coupled together and the train started, and the latter spring, *h*, is located between the inside of the oscillating frame *f* and a projection, $d^{iv}$, on the draw-bar *d*, as shown, to allow the latter to yield when the cars are butted against each other. The extent of the slot *d'* serves as a stop to limit the yielding motion of the draw-bar in either direction, as the strain of the said bar is finally transferred to the stationary fulcrum-bolt *e*, that is made of sufficient size to sustain the pulling strain of the cars.

*i i* are side springs attached to the under side of the car, and pressing one on each side of the oscillating frame *f*, so as to keep the latter in a central position when the cars are moved on a straight track or when the draw-bar is uncoupled.

*k* is a screw or bolt passing through a slotted perforation in the upper part of the frame *f*, so as to limit the swinging motion of the latter and to serve as a stop when the frame is swung to its greatest extent to the right or left.

*l l* are the double bunters, made in one piece with the draw-bar *d*, one at the top and one at the bottom of said bar, as shown. The draw-bar *d* extends beyond the double bunters *l l*, as a double lock-coupling, composed of coupling-prongs D D on the upper and under side of the draw-bar, as shown, and having slots or recesses D' D' between the upper and lower sets of coupling-prongs, so as to allow for the reception therein of the draw-bar of the adjoining car that is to be coupled, and to prevent lateral motion of the couplings when coupled together, and thus prevent their being accidentally uncoupled from each other by the swaying of the cars when in motion.

*m* is an indentation in the extreme end of the coupling-bar, and *n* is a vertical perforation for the purpose of securing thereto, by means of the usual bolt and shackle, any car not provided with my improved coupling.

*o* is a suitable crank-shaft provided with side levers, *p p*, by means of which the cars may be uncoupled from each other without the need of the brakeman going between the cars; but any other well-known device, such as a lever on the top of the car with a chain or cord descending therefrom to the coupling-bar, or other device, may be used; but I wish to state that I do not wish to confine myself to any particular device for this purpose.

What I wish to secure by Letters Patent, and claim, is—

The combination of the slotted draw-bar *d*, jointed to the fulcrum-bolt *e* and the oscillating frame *f*, and the yielding springs *g h i i*, as and for the purpose set forth and described.

In testimony whereof I have affixed my signature in presence of two witnesses.

WILLIAM P. CUTTER.

Witnesses:
ALBAN ANDRÉN,
HENRY CHADBOURN.