

(No Model.)

J. E. CUNNINGHAM.
CAR COUPLING.

No. 605,287.

Patented June 7, 1898.

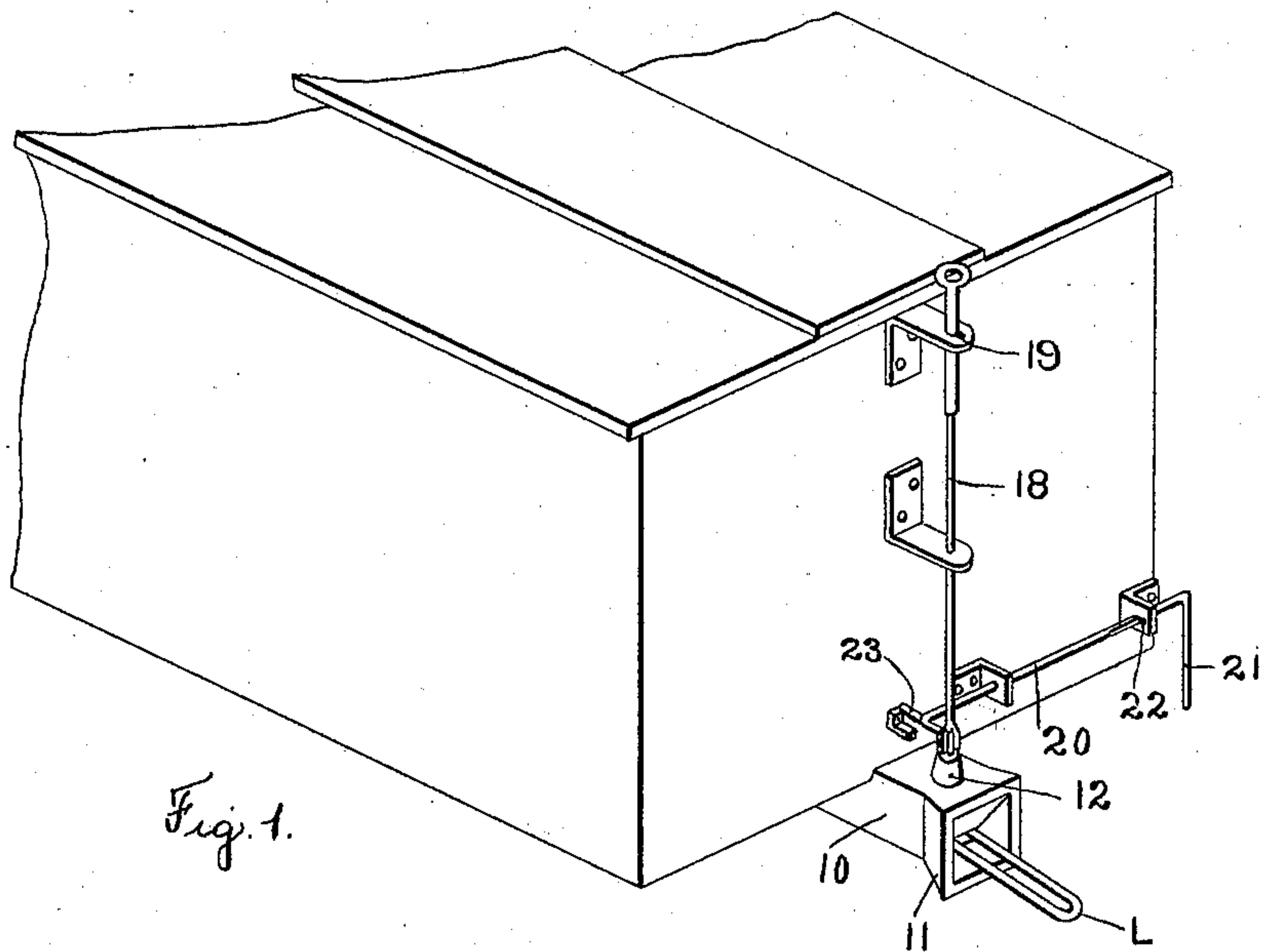


Fig. 1.

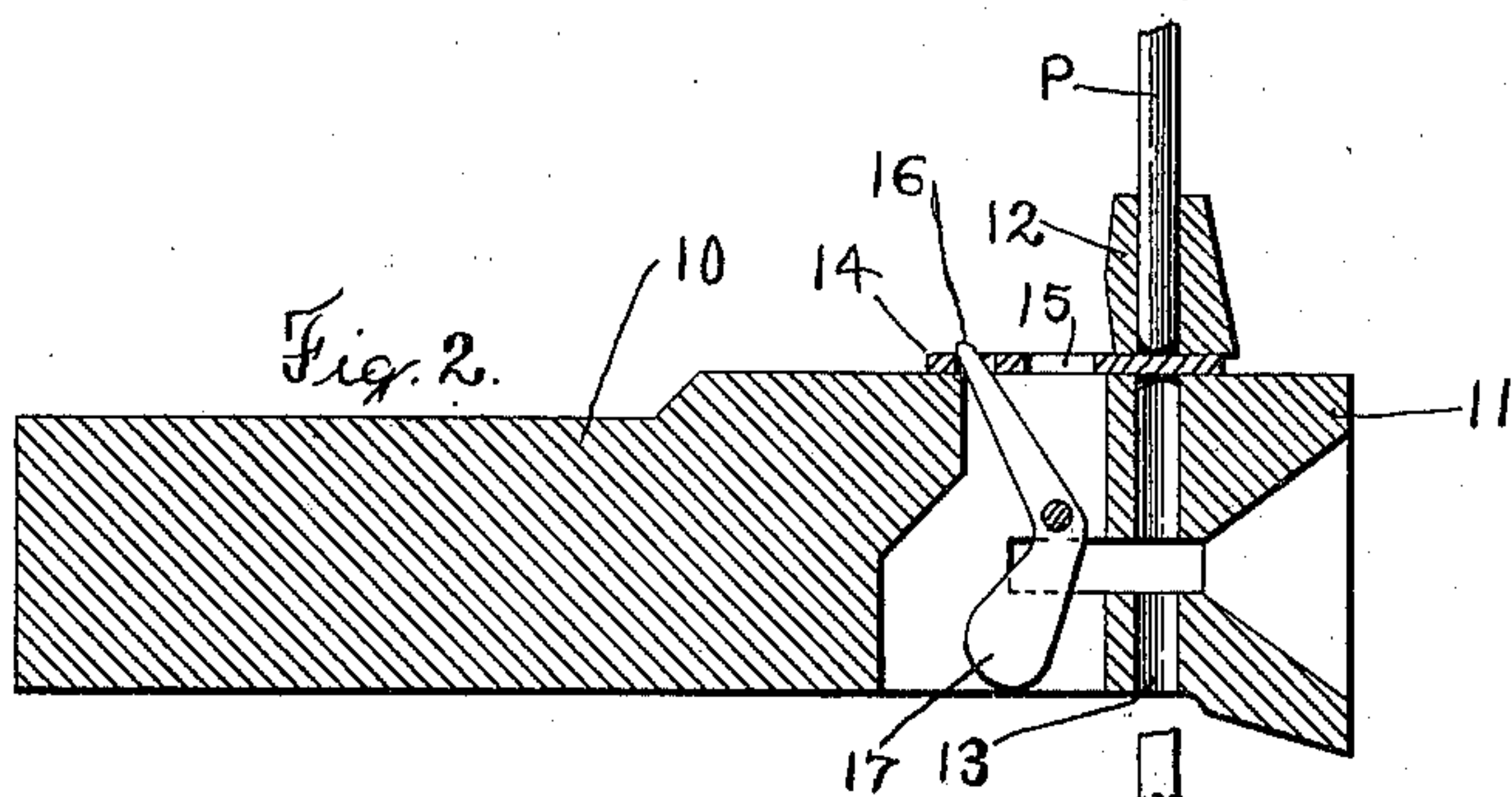


Fig. 2.

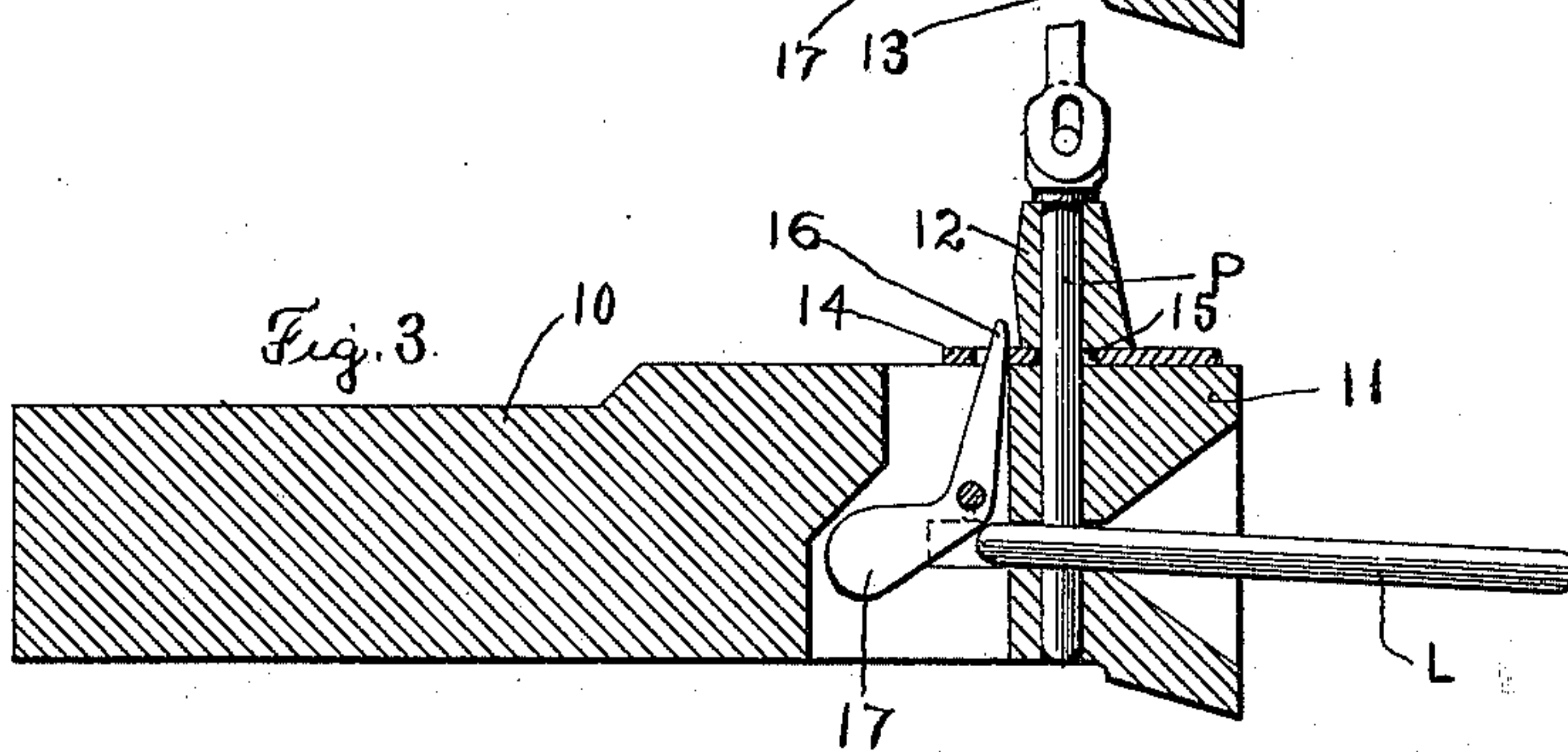


Fig. 3.

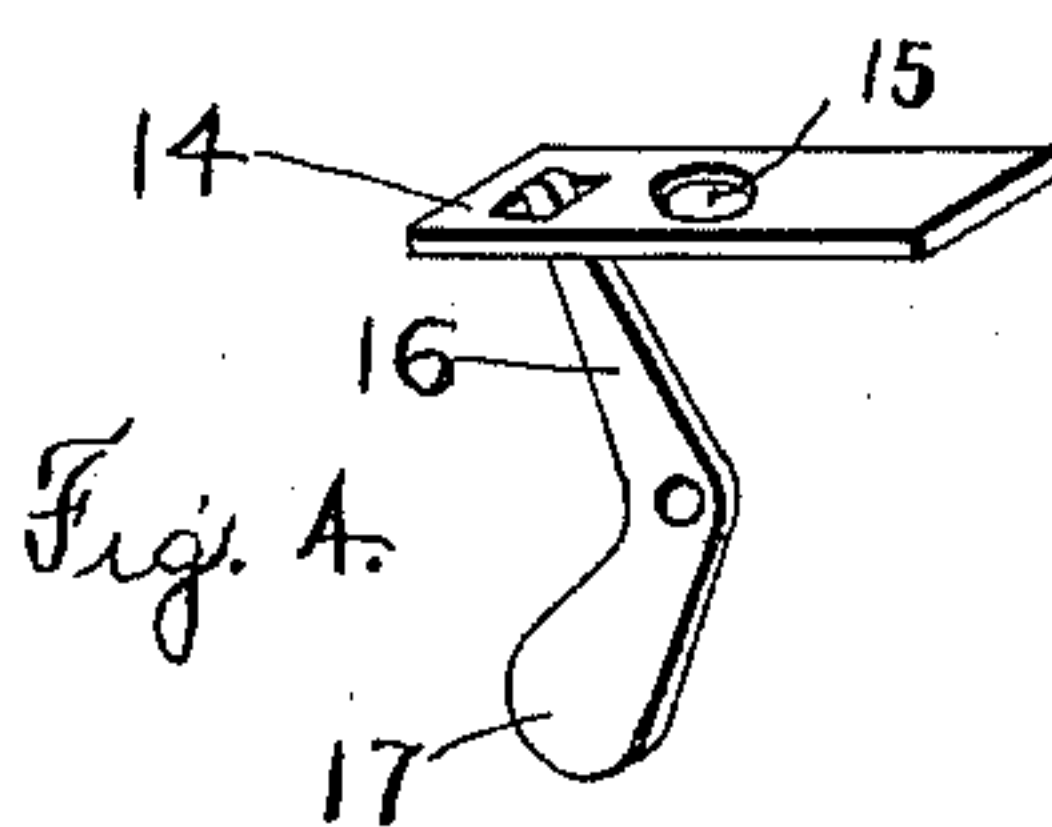


Fig. 4.

Witnesses.

W. J. Baldwin -

H. L. Abbott.

Inventor.

J. E. Cunningham.

By

Southgate & Southgate
Attorneys.

UNITED STATES PATENT OFFICE.

JAMES E. CUNNINGHAM, OF WORCESTER, MASSACHUSETTS.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 605,287, dated June 7, 1898.

Application filed November 24, 1897. Serial No. 659,667. (No model.)

To all whom it may concern:

Be it known that I, JAMES E. CUNNINGHAM, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention relates to a link-and-pin-coupling device for coupling together cars or locomotives; and the especial object of my invention is to provide strong, simple, and efficient means for supporting and automatically releasing the coupling-pin to permit the cars or locomotives to be automatically connected together.

A further object of my invention is to provide connections for operating the coupling-pin either from the top or side of the car and for locking the coupling-pin in a raised position when desired.

To these ends my invention consists of the parts and combinations of parts, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a perspective view illustrating coupling devices constructed according to my invention applied to an ordinary box-car. Fig. 2 is an enlarged sectional view showing the coupling-pin in its raised position. Fig. 3 is a similar view showing the coupling-pin dropped down into engagement with its link, and Fig. 4 is a perspective view illustrating the means which I preferably employ for supporting and automatically releasing the coupling-pin.

A car-coupling device constructed according to my invention comprises a draw-head of substantially the ordinary construction, a slide for cutting off the coupling-pin socket and holding a coupling-pin in a raised position, and a weighted lever for normally retracting the slide, the tailpiece of said lever being located in position to be engaged by the coupling-link.

Referring to the drawings and in detail, 10 designates the draw-head, which may be connected to the car in any of the ordinary manners and which is provided with a flaring mouthpiece 11, having inclined surfaces for guiding the coupling-link L properly into its position in the draw-head. Mounted upon

the upper surface of the draw-head 10 or formed integrally therewith is a guide 12 for supporting a coupling-pin P and for guiding the same properly into engagement with its socket 13 in the draw-head 10. Extending through the guide 12 is a slide 14. The slide 14 is engaged by and normally drawn back to the position illustrated in Fig. 2 by a lever 16, which is pivoted in the draw-head and extends up through said slide and is provided with a weighted tailpiece 17. The tailpiece 17 is arranged to be engaged by the coupling-link L. By means of this construction when the cars are brought together the coupling-link L will turn the weighted lever 16, pushing the slide 14 forward until a perforation 15 therein registers with the coupling-pin socket 13. This will release the coupling-pin, so that the same will drop by gravity to its coupled position, as illustrated in Fig. 3.

The connections which I employ for operating the coupling-pin from the top or side of the car may be of any of the ordinary or approved constructions. As illustrated, the coupling-pin P is connected to a lifting-link 18 by means of a pin-and-slot connection. The lifting-link 18 is enlarged at its upper end and extends through a support having a locking-notch 19. When the coupling-pin P is raised by the lifting-link 18, it may then be locked in its raised position by pushing the reduced portion of the lifting-link 18 into engagement with the notch 19.

To operate the coupling-pin P from the side of the car, I preferably provide a rock-shaft 20, which is pivotally connected to the coupling-pin and is provided at its outer end with an operating-handle 21. Near its outer end the rock-shaft 20 is provided with a flattened section which when the rock-shaft is turned to lift the coupling-pin can then be pushed into engagement with a locking-notch 22 to lock the coupling-pin P in its elevated position.

In order to prevent the coupling-pin P from being lifted so high as to disengage the same from its guide 12, the rock-shaft 20 may be provided with an arm 23 for engaging a stop-piece on the side of the car.

I am aware that changes may be made in the construction of my car-coupling by those who are skilled in the art without departing

from the scope of my invention as expressed in the claims. I do not wish, therefore, to be limited to the particular forms which I have shown and described; but

5 What I do claim, and desire to secure by Letters Patent of the United States, is—

1. In a coupling device for cars, the combination of a draw-head 10 having a socket for a coupling-link, a guide 12 for a coupling-pin
10 extending up from the upper surface of the draw-head 10, a perforated slide 14 on the upper surface of the draw-head 10, and an operating-lever 16 pivoted in the draw-head above the coupling-link socket, and having a
15 tailpiece 17 normally tending to retract the slide 14, and located in position to be engaged by a coupling-link to move the slide in the opposite direction from that traversed by the coupling-link so as to release the coupling-
20 pin, substantially as described.

2. In a coupling device for cars, the combination of a draw-head 10 having a flaring mouth 11 and a socket for a coupling-link, a

guide 12 extending up from the upper surface of the draw-head 10 for supporting and direct- 25
ing a coupling-pin, a perforated slide 14 mounted on the upper surface of the draw-head 10, a lever 16 pivotally mounted in the draw-head 10, and having a tailpiece 17 normally
30 extending down below the pivot of the lever 16 in position to be engaged by the coupling-link to force the slide forward in the opposite direction from that traversed by the coupling-link, a lifting-link 18 for raising the coupling-
35 pin from the top of the car, a rock-shaft 20 for lifting the coupling-pin from the side of the car, and means for locking said connections to support the coupling-pin in its raised position, substantially as described.

In testimony whereof I have hereunto set 40
my hand in the presence of two subscribing witnesses.

JAMES E. CUNNINGHAM.

Witnesses:

LOUIS W. SOUTHGATE,
PHILIP W. SOUTHGATE.