

W. Y. Warner.

Car Coupling.

N<sup>o</sup> 71559

Patented Nov. 26, 1867.

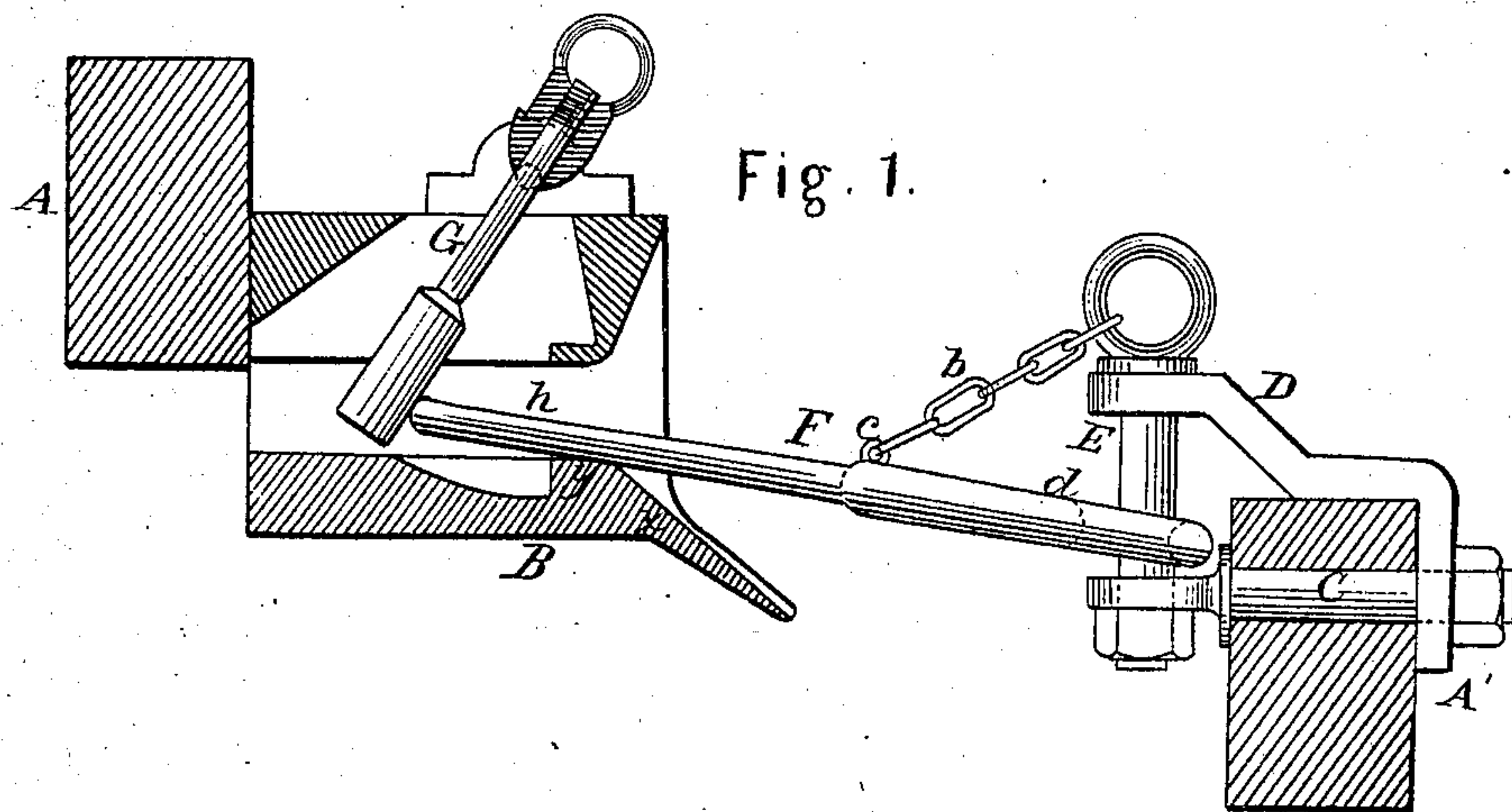


Fig. 1.

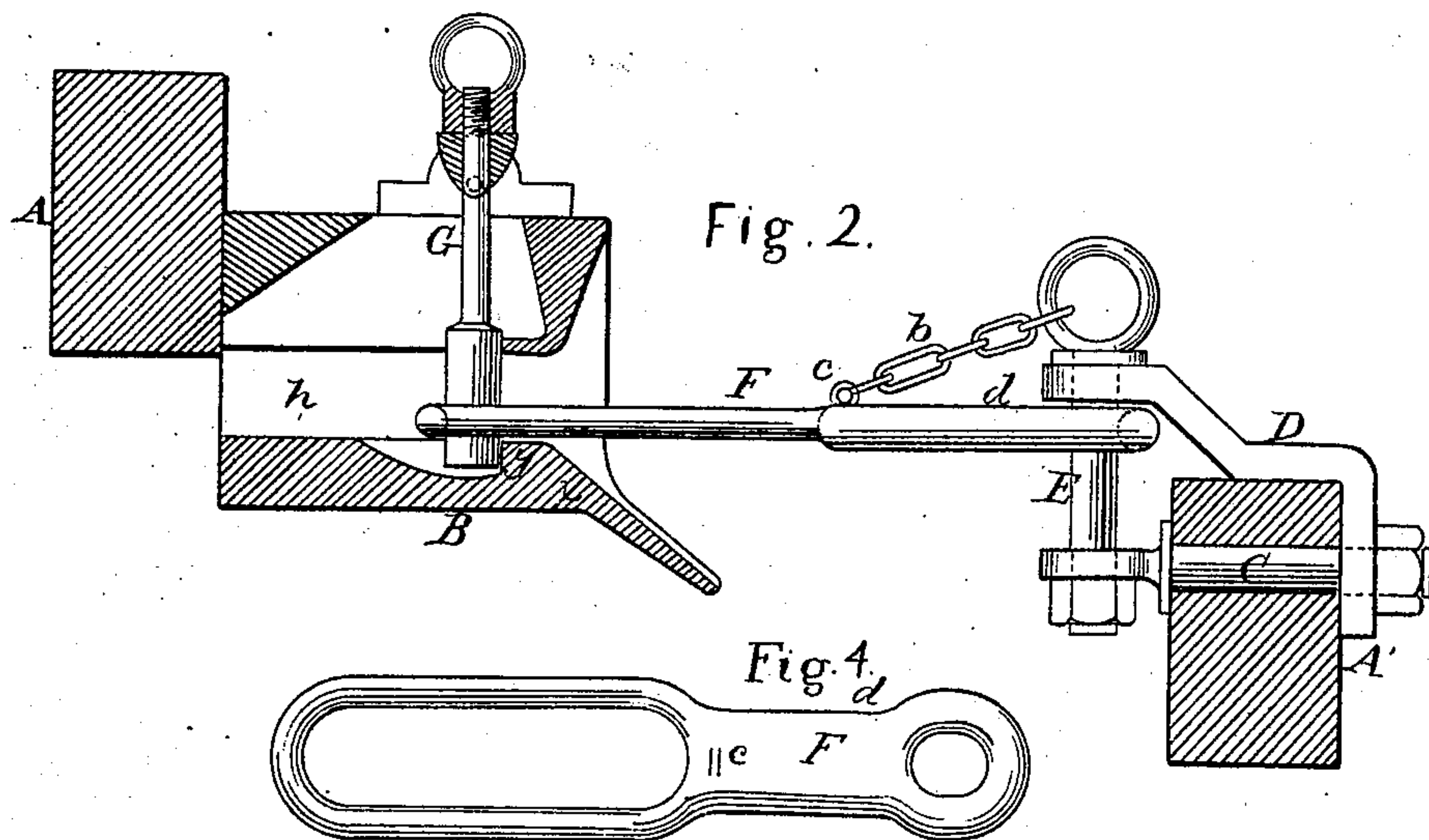


Fig. 2.

Fig. 4.

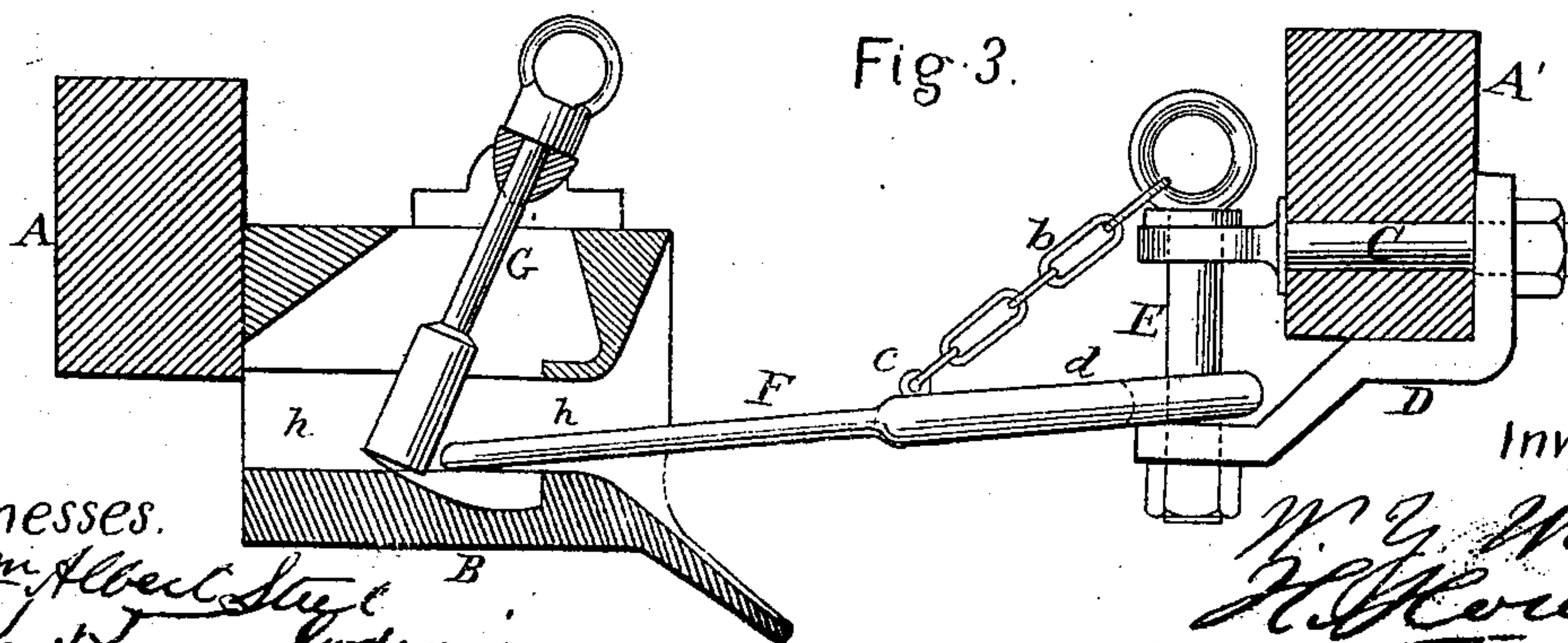


Fig. 3.

Witnesses.

Wm. Albert Steel  
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# United States Patent Office.

W. Y. WARNER, OF WILMINGTON, DELAWARE.

*Letters Patent No. 71,559, dated November 26, 1867.*

## IMPROVED CAR-COUPLING.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, W. Y. WARNER, of Wilmington, Delaware, have invented an Improved Automatic Car-Coupling; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an improvement in the car-coupling for which Letters Patent were granted to me on the 19th day of March, 1867; and consists of a link balanced or nearly balanced by a chain or its equivalent, and arranged to slide vertically on a coupling-bolt, all substantially as described hereafter, so that when cars of unequal heights are coupled together, the link will adjust itself to a horizontal position, and the only strain upon the cars will be in a direct line.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figures 1, 2, 3, are vertical sections of my improved car-coupling, showing the parts in different positions, and Figure 4, a plan view of the link used in the coupling.

To the bumper-beam A of one car is secured a cast-iron coupling-block, B, similar to that for which Letters Patent were granted to me on the 19th day of March, 1867, and to the bumper-beam A' of another car, is secured by means of a bolt, C, a bent plate or bracket, D, of the form, or approximating to the form, shown in the drawing. To a bolt, E, passing through holes formed in the head of the bolt C, and in the outer end of the plate D, is hung one end of a link, F, which is arranged to have free vertical play upon the bolt, between the plate D and the head of the bolt C, and is maintained in the desired horizontal or nearly horizontal position by means of a chain, b, secured to it at the point c, the opposite end of the said chain being connected to an eye formed on the head of the vertical bolt E. The short portion, d, of the link F, is solid, so that it shall be balanced at the point of suspension c, and naturally assume a horizontal position, thus relieving the chain b of any strain, beyond the actual weight of the link.

In fig. 1, the coupling-block is shown as secured to a high car, and the link as projecting from a much lower one. In this case, when the two cars are first brought together, the horizontal link, held in its position by the chain b, will strike the flaring mouth of the coupling-block, traverse the inclined portion of the same, and enter the recess h of the block, pushing back the pin G, as shown in fig. 1. When the pin is pushed back still further, it drops through the link and assumes a vertical position, the withdrawal of the link being prevented until the pin is raised by the shoulder y of the block, against which a portion of the pin bears. The two cars having been automatically coupled together, the balanced link F, as it is free to slide upon the vertical bolt E, will assume a horizontal or nearly horizontal position (fig. 2.) By this means of coupling, the strain between two cars of different heights is always in a direct line, and not inclined, as is generally the case. In fig. 3 the position of the coupling-block and link is reversed, the latter being secured to the high car, but in this case the same result, a direct pull, is obtained.

I claim as my invention, and desire to secure by Letters Patent—

The link F, balanced or nearly balanced by the chain b, or its equivalent, and arranged to slide on the coupling-bolt E, all substantially as set forth.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

W. Y. WARNER.

Witnesses:

J. M. SCOTT,  
JAMES SCOTT.