

(No Model.)

J. H. & F. A. EARLES.
CAR COUPLING.

No. 497,266.

Patented May 9, 1893.

Fig. 1.

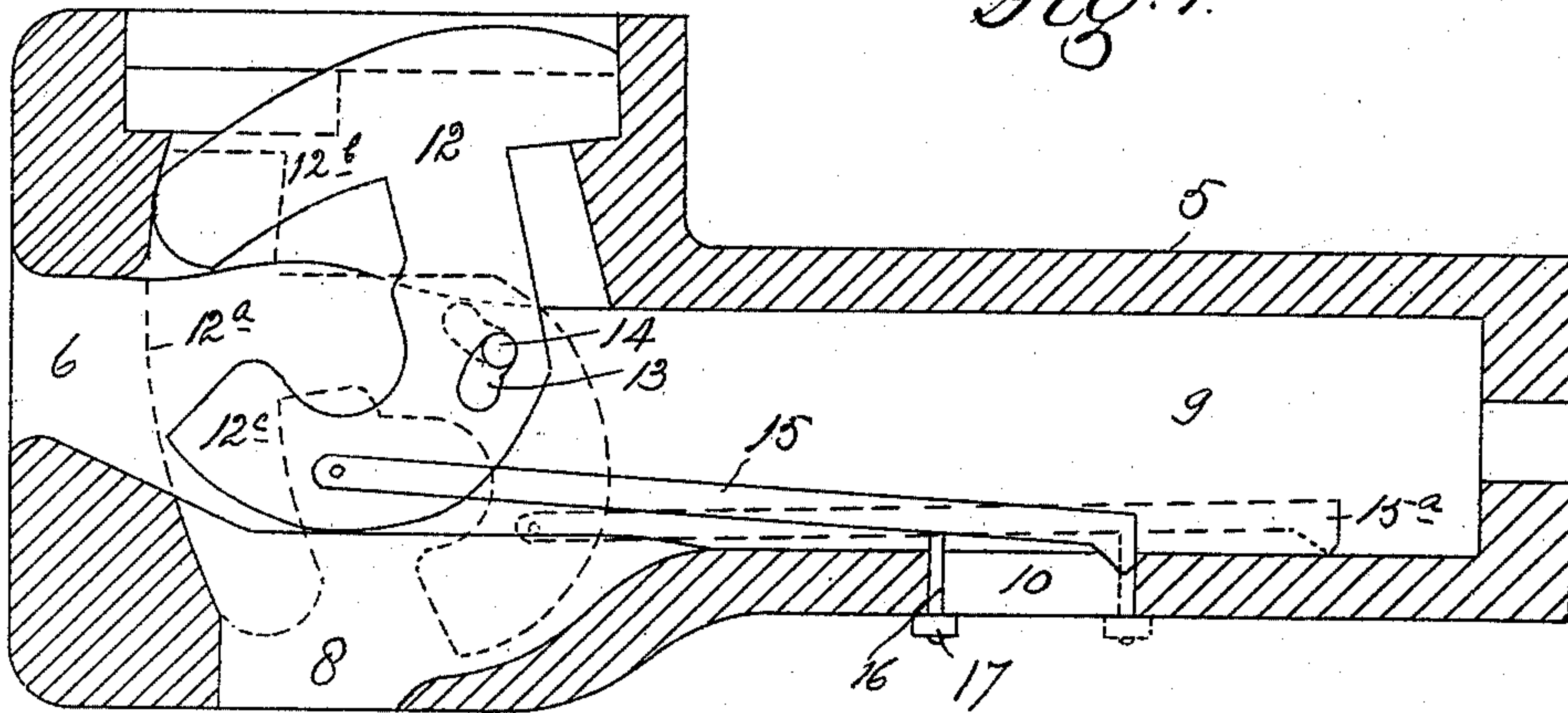


Fig. 2.

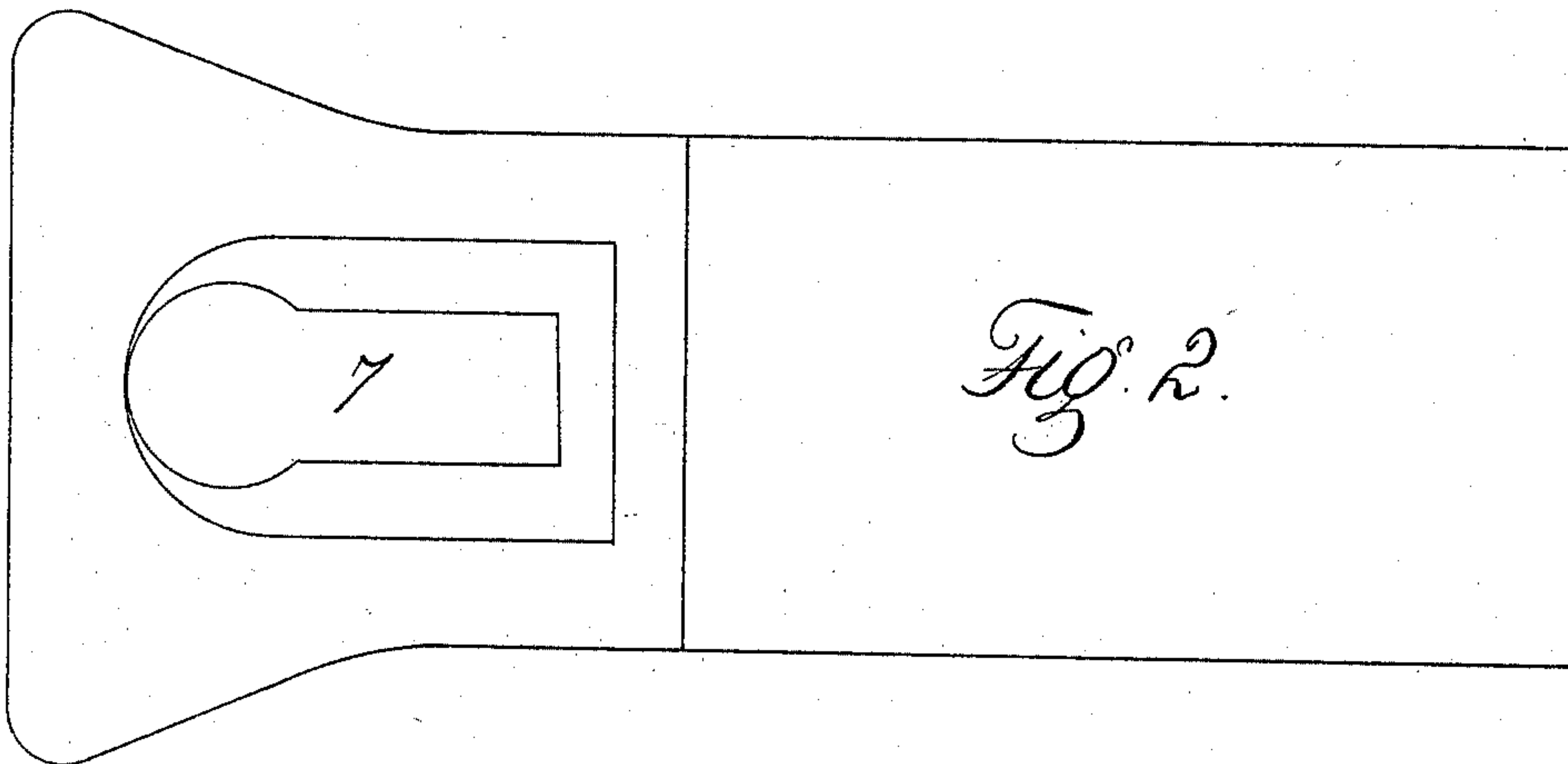


Fig. 3.

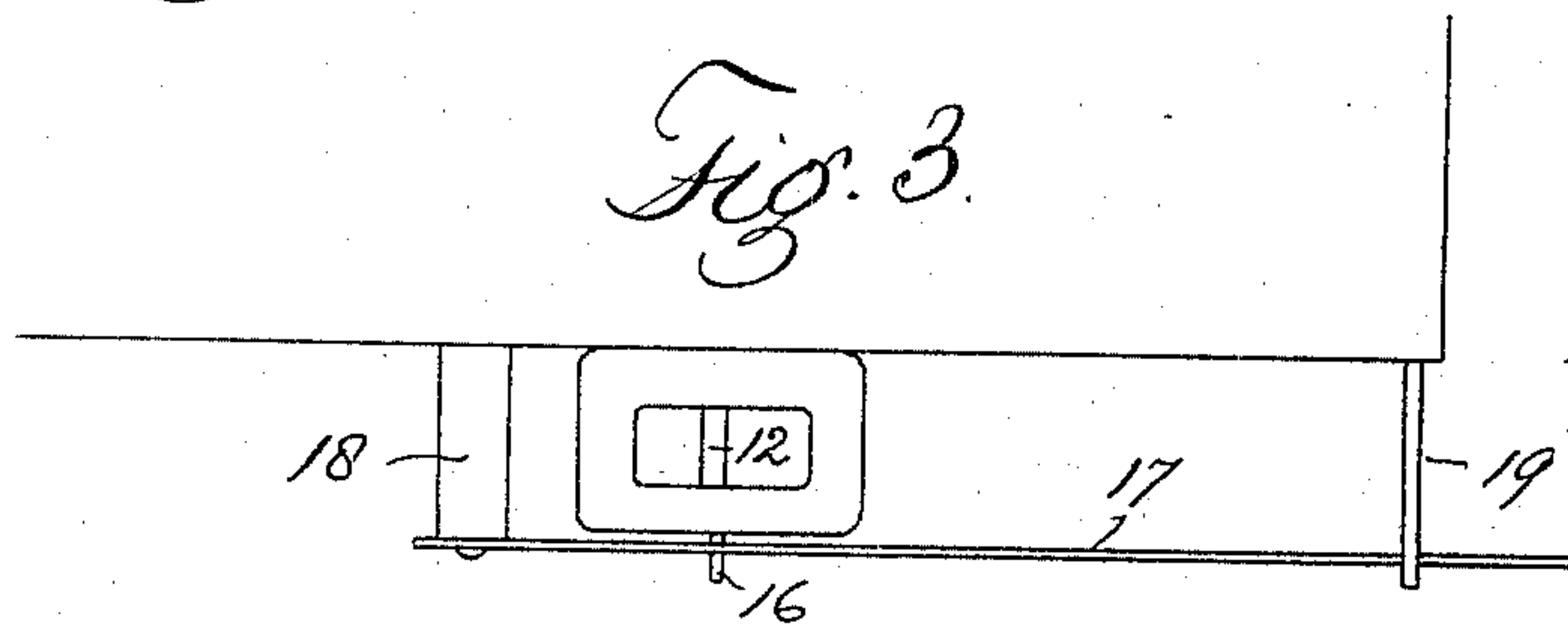


Fig. 4.



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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 497,266, dated May 9, 1893.

Application filed June 1, 1892. Serial No. 435,212. (No model.)

To all whom it may concern:

Be it known that we, JOHN H. EARLES and FRANK A. EARLES, citizens of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Car-Couplers; and we do 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 the figures of reference marked thereon, which form a part of this specification.

Our invention relates to improvements in car couplers and the object of the invention is to provide a coupler which shall be simple in construction, consisting of few parts, and those not liable to become disarranged, economical in cost, reliable, durable, efficient and thoroughly practicable in use as well as automatic in operation.

To these ends the improvement consists of the features, arrangements and combinations hereinafter described and claimed and will be fully understood by reference to the accompanying drawings in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is vertical longitudinal section taken through the drawhead, provided with our improvements. Fig. 2 is a top view of the drawhead. Fig. 3 is a front view of the mechanism shown on a smaller scale. Fig. 4 shows the supporting stirrup for the uncoupling lever.

Similar reference characters indicating corresponding parts or elements of the mechanism in the several views let the numeral 5 designate the drawhead, having the link recess 6, the top opening 7 communicating with the link recess, the bottom opening 8 and the rearward longitudinal opening 9 from which leads a bottom opening 10 in the rear of opening 8. The coupling hook 12 is provided with an elongated aperture 13 through which is passed a transverse pin 14 which engages apertures formed in the sides of the drawhead and forms the support for the hook. To the lower part of hook 12 is pivoted the forward extremity of a bar 15 which is provided

near its opposite extremity with a depending projection 16 which passes through opening 10 in the drawbar. To the lower extremity of this projection is pivoted a lever 17 which is fulcrumed at one extremity to a hanger 18 secured to the car and supported at its opposite extremity by a stirrup 19 attached to the car and provided with a notch 20 forming a catch or temporary lock for the lever.

From the foregoing description the operation of the coupler will be fully understood. It will be observed that the hook 12 couples automatically as the link enters the drawhead whether the hook is in the locked or unlocked position. If in the locked or coupled position as shown by dotted lines in Fig. 1, it is forced upward to the full line position, by virtue of the curved or beveled face 12^a which is presented to the link. As the hook 12^b is carried upward the lower part 12^c together with bar 15 is drawn forward, the rear extremity of the bar dropping into opening 10 of the drawbar and temporarily locking the hook in the upraised position. This engaging extremity of the bar 15 is provided with a beveled lug 15^a, the rear extremity of the opening 10 being of such shape that a backward thrust upon the bar will raise the lug 15^a out of opening 10 and allow the bar to pass backward to the dotted line position. The hook 12^b being raised, the lower part 12^c of the locking device is raised into the link recess and into the path of the link as it enters the drawhead. The link engaging this part 12^c of the hook forces the same backward and draws the hook 12^b downward to the coupled position.

The coupling device is manipulated for uncoupling purposes by the use of lever 17 which projects to the outside of the car, and within reach of the trainman without going between the cars. It will be seen that by shifting the lever 17 back and forth within its supporting stirrup the coupling device is changed at will from one position to the other. When it is desired to lock the hook in the uncoupled position the lever is dropped into notch 20 in which case the link may enter the drawhead, engage the hook and pass out without coupling the cars or changing the position of the

hook. This provision is made for the reason that it is not always desirable to couple the cars when the drawheads engage.

Having thus described our invention, what we claim is—

1. In a car coupling the combination with the drawhead recessed to receive the coupling device, of the hooked coupling device pivoted therein and the rearwardly extending bar pivoted to the lower part of the coupling device and carrying a hanger projecting through an opening formed in the lower part of the drawhead, and a lever pivoted to said hanger and provided with a suitable support whereby the coupling hook may be manipulated from the outside of the car, substantially as described.

2. In a car coupler the combination with

the drawhead provided with the link recess, the top opening leading thereto, the rearward longitudinal opening and the opening 10 leading downward therefrom, of the pivoted hook-shaped coupling device and means for manipulating the same from the outside of the car, consisting of the rearwardly extending bar pivoted thereto and carrying a hanger projecting through opening 10 and a lever pivoted to said hanger and provided with a suitable support, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN H. EARLES.

FRANK A. EARLES.

Witnesses:

WM. MCCONNELL,

G. H. STOVER.