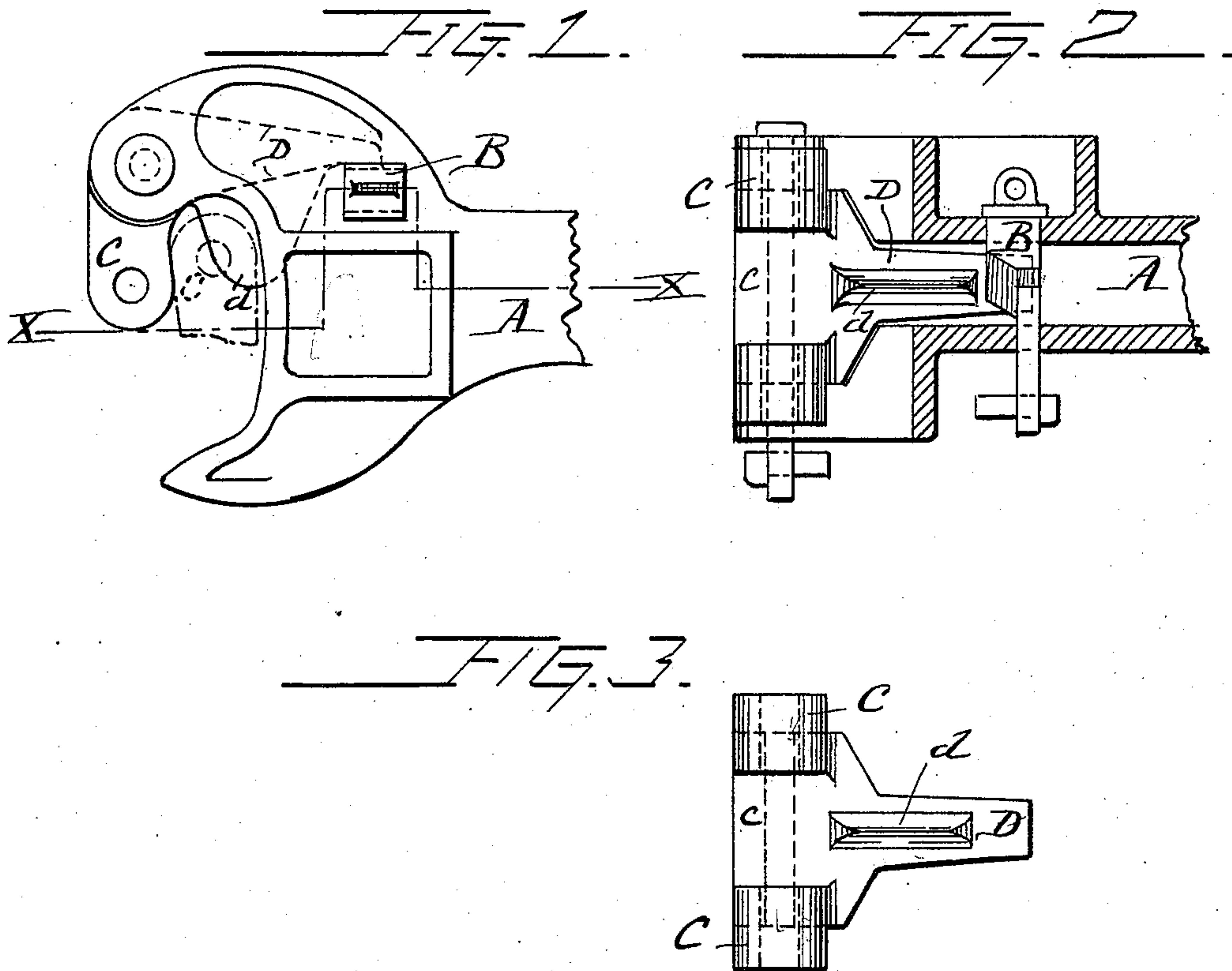


(No Model.)

H. E. WELSH.  
CAR COUPLING.

No. 576,707.

Patented Feb. 9, 1897.



Witnesses  
Caleb J. Bieber  
David Levan

Hamilton E. Welsh Inventor

By Attorney.

*[Signature]*

# UNITED STATES PATENT OFFICE.

HAMILTON E. WELSH, OF COLUMBIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JOSEPH H. BLACK, OF SAME PLACE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 576,707, dated February 9, 1897.

Application filed August 30, 1894. Serial No. 521,703. (No model.)

*To all whom it may concern:*

Be it known that I, HAMILTON E. WELSH, a citizen of the United States, residing at Columbia, county of Lancaster, State of Pennsylvania, have invented certain Improvements in Car-Couplers, of which the following is a specification.

My invention relates particularly to that class of car-couplings known as the "Janney" type, in which a rotary jaw arranged to swing in a horizontal plane is employed in connection with means for locking and unlocking the same to couple or uncouple adjacent cars. In this class of couplers the connection is dependent entirely on the engagement of the hook-shaped jaws, the faces of which are of sufficient depth to avoid disconnection through any ordinary difference in the height of the connected cars. One serious disadvantage in the practical operation of these couplers, however, is that if one of the heads be torn from its connection with the car, as will occasionally happen, it is not carried by the connected coupling, but is free to drop to the road-bed, where it almost inevitably causes a more or less serious wreck of the disconnected portion of the train with great damage to property and possible loss of life.

The object of my invention is to positively prevent all accidents and losses from this cause by a simple change in the form of the swinging jaw or knuckle and without involving any peculiarity in the construction of the head or main portion of the coupling. It is fully described in connection with the accompanying drawings, and is specifically pointed out in the claim.

Figure 1 is a plan view of a coupling embodying a preferred form of my invention. Fig. 2 is a sectional elevation of the same. Fig. 3 is a separate view of the rotary jaw.

The coupling or draw-head A, rotary jaw C, and locking-pin B are represented as of ordinary Janney form, except as to the lever-arm D of the jaw, which is provided on its inner face with a tongue-like horizontal projection *d*. This tongue is comparatively thin and wedge-shaped and is located just to the rear of the mouth *c* of the hook-shaped jaw C, as shown, so that it will enter the mouth of a corresponding coupling-jaw on an adjacent car when the two are brought into coupled position.

In operating there is no difference whatever from the ordinary method of coupling this class of automatic couplers. With the locking-pins B raised and the jaws swung outward two approaching couplers come in contact, as usual, the wedge-shaped tongue of one coupler readily falling above or below that of the other, and the jaws being swung inward until they are automatically locked by the pins B. When thus coupled, each tongue *d* is entered in the mouth *c* of the adjoining coupling-jaw, which mouth is made of ample size to permit any required up-and-down movement of the connected cars. If, however, one of the draw-heads be drawn from its connection with the car-body, it cannot possibly fall out of engagement with the connected coupling, owing to its upper jaw coming in contact with the tongue *d* of the other coupling, and it is thus inseparably attached to and carried with the latter instead of falling upon the road-bed.

It will be seen that my invention is readily applicable to different forms of Janney couplings with but slight expense, inasmuch as the separately-formed jaw-piece only is changed, and the change is such as to involve no greater expense than the replacing of the form of jaw which is now used in connection with such couplings. The lever portion of one of my jaw-pieces being arranged to engage the jaw portion of an adjacent jaw-piece, the purpose aimed at is effected entirely regardless of the form of the draw-head, thus enabling any Janney draw-head having my improved jaw-piece applied thereto to support and be supported by any other Janney type of draw-head similarly supplied.

What I claim is—

The combination with a coupling-head of the class described of a horizontally-swinging coupling-jaw pivoted thereto and provided with a locking-lever D having a projecting tongue *d* adapted to engage the jaw of an adjacent coupling, substantially as and for the purpose set forth.

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

HAMILTON E. WELSH.

Witnesses:

JOS. W. YOCUM,  
H. B. CLEPPER.