

(No Model.)

E. D. SHOBE.  
CAR COUPLING.

No. 370,092.

Patented Sept. 20, 1887.

Fig 1

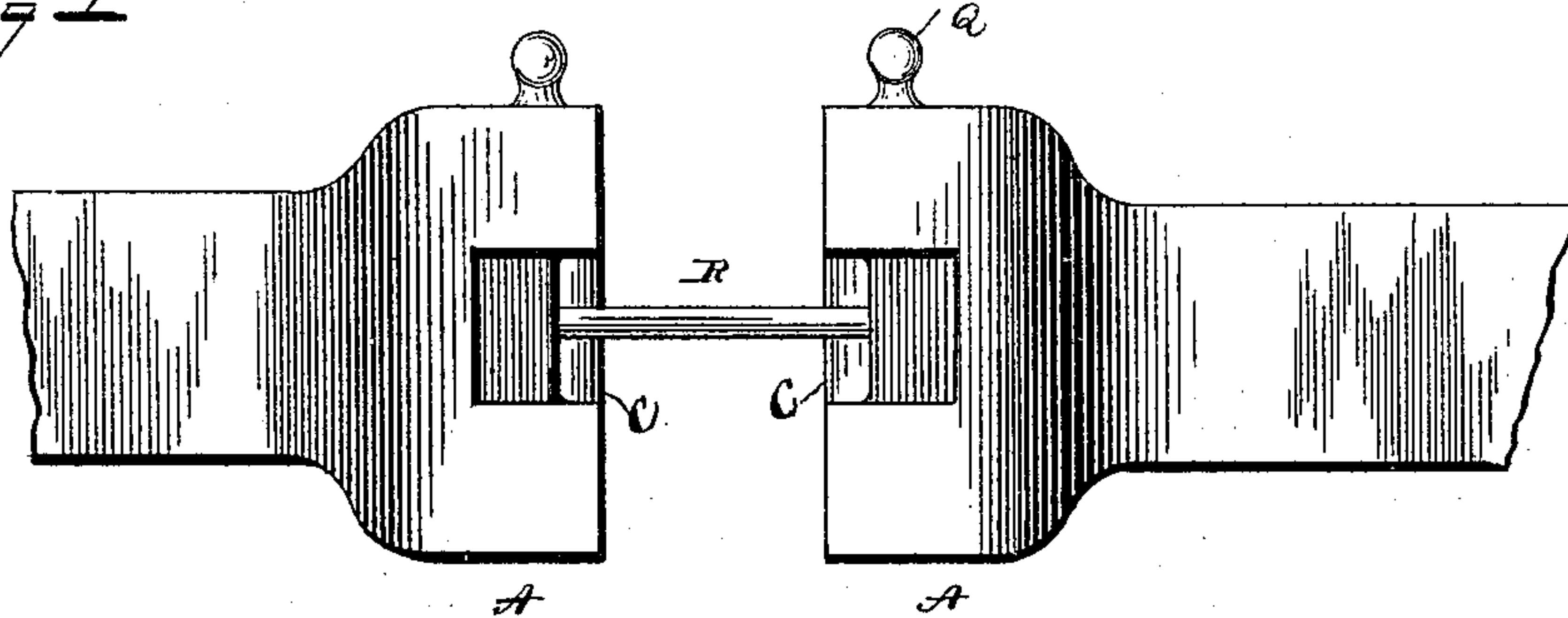


Fig 2

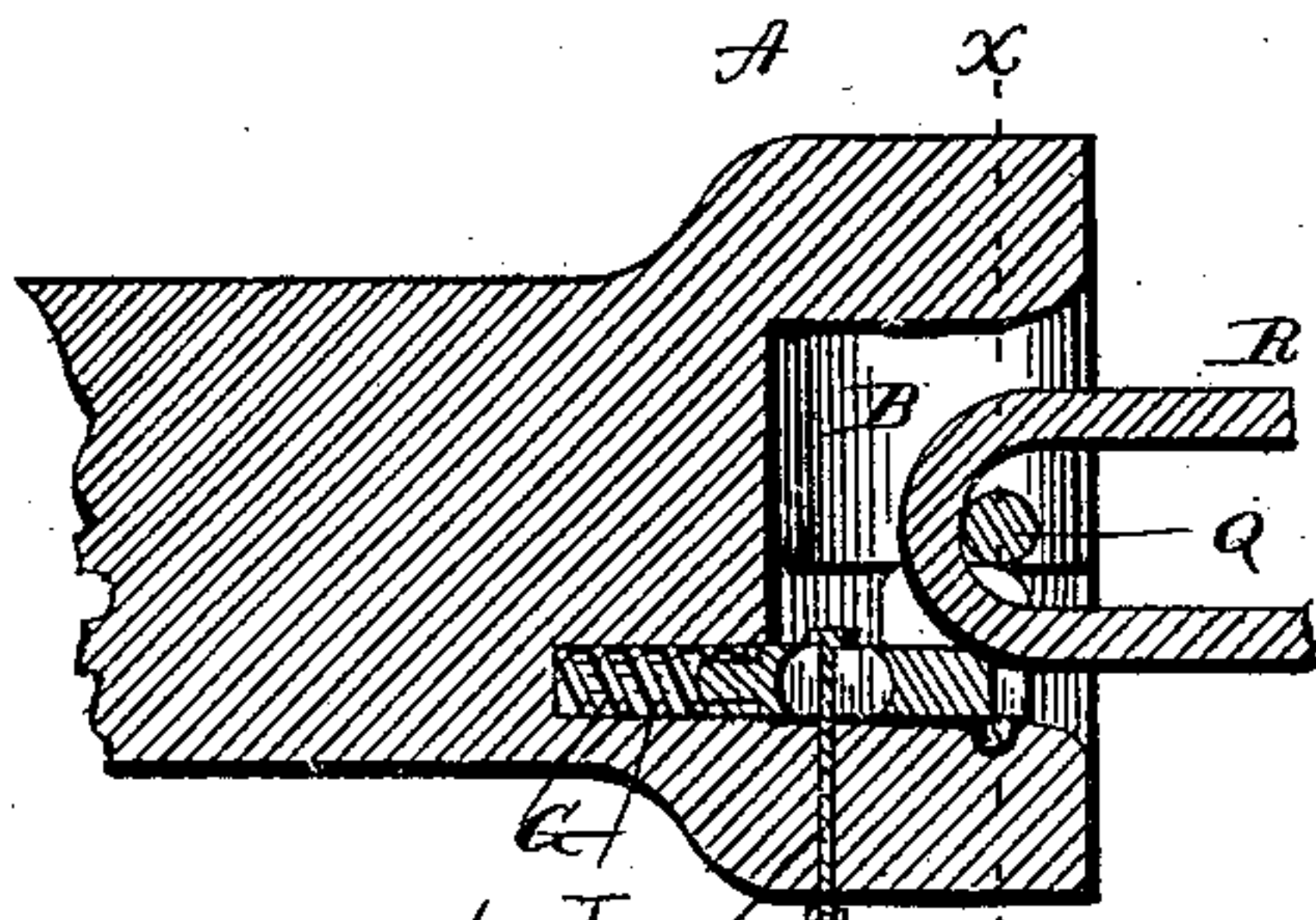


Fig 3

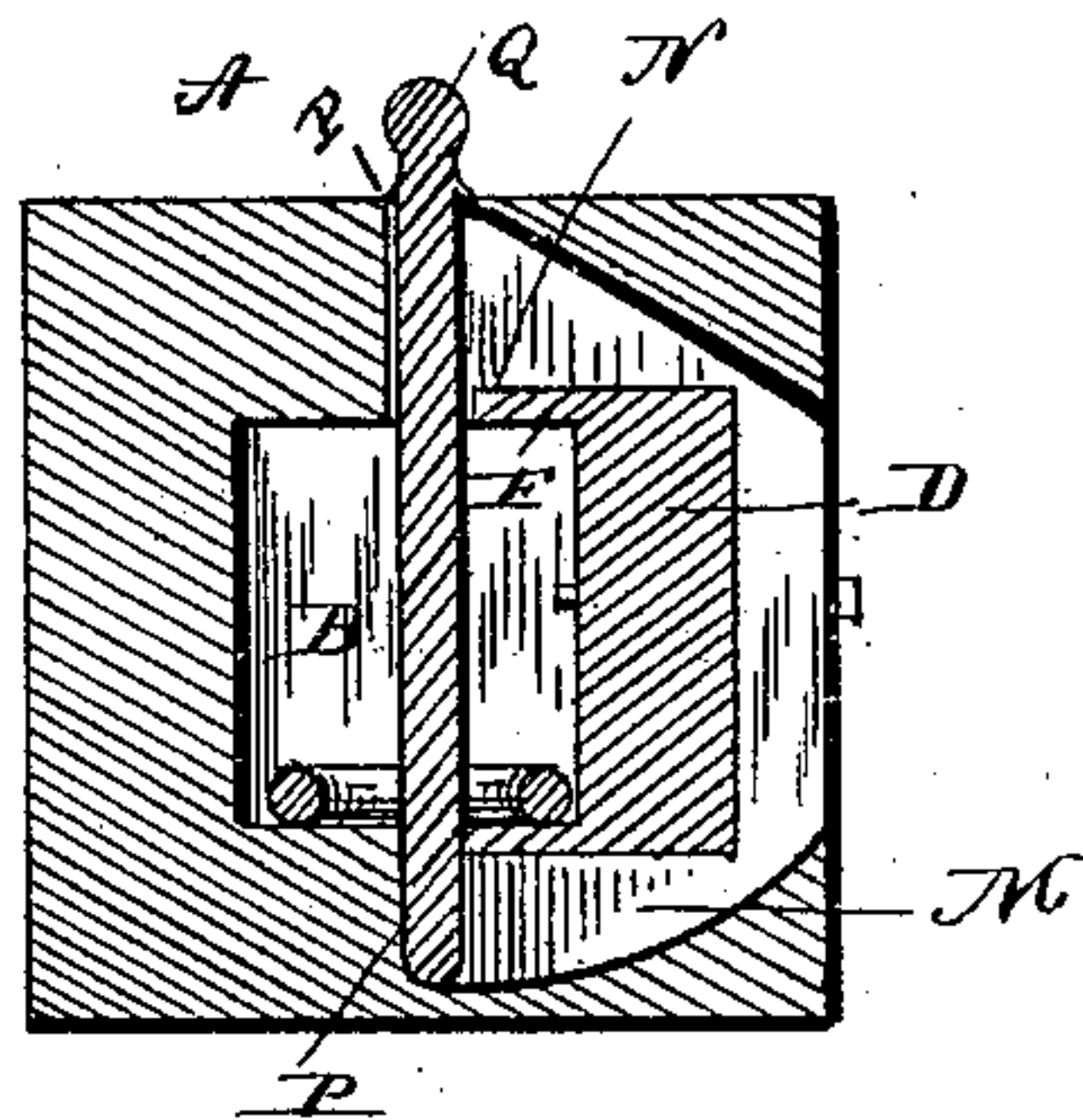


Fig 4

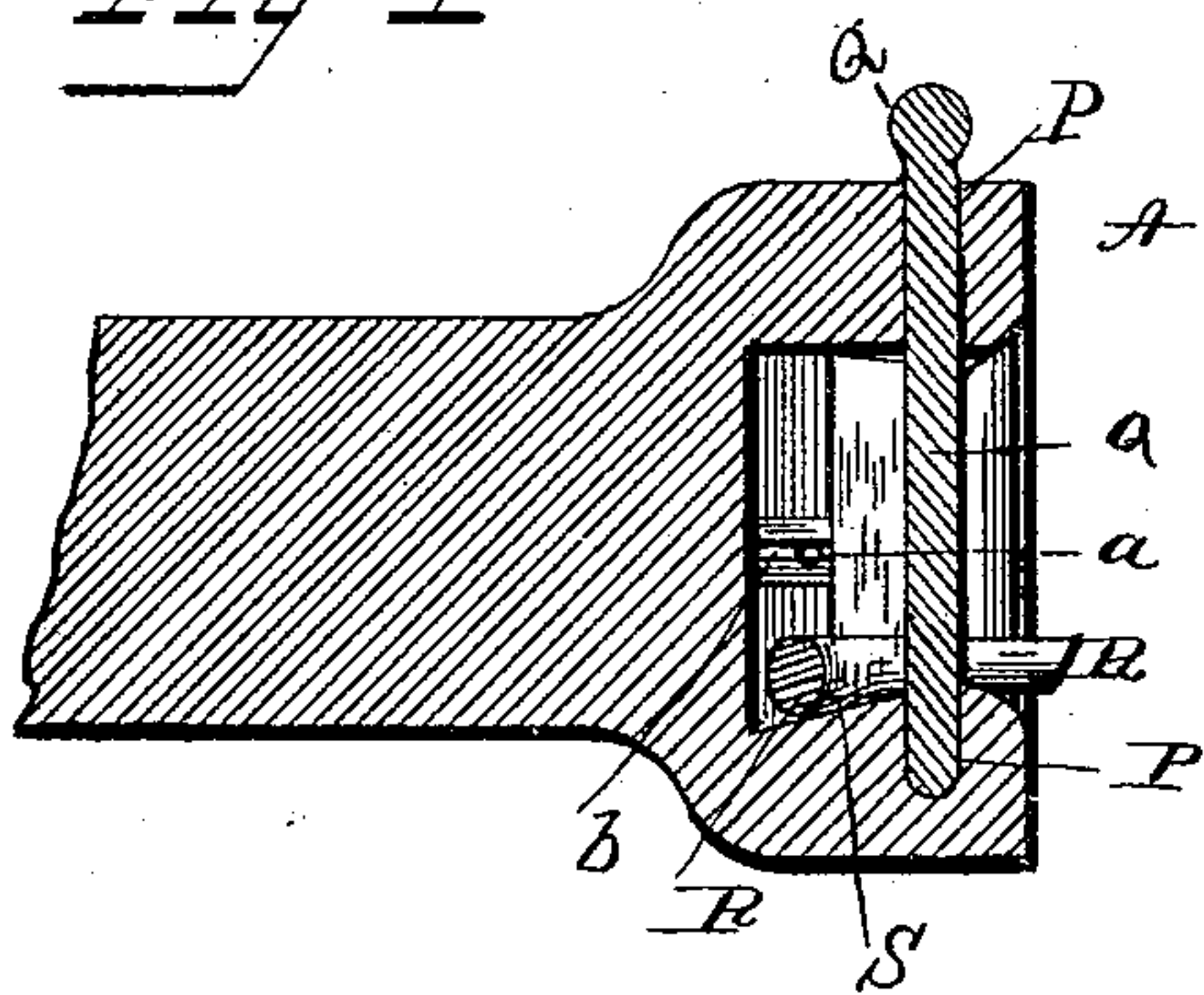


Fig 5

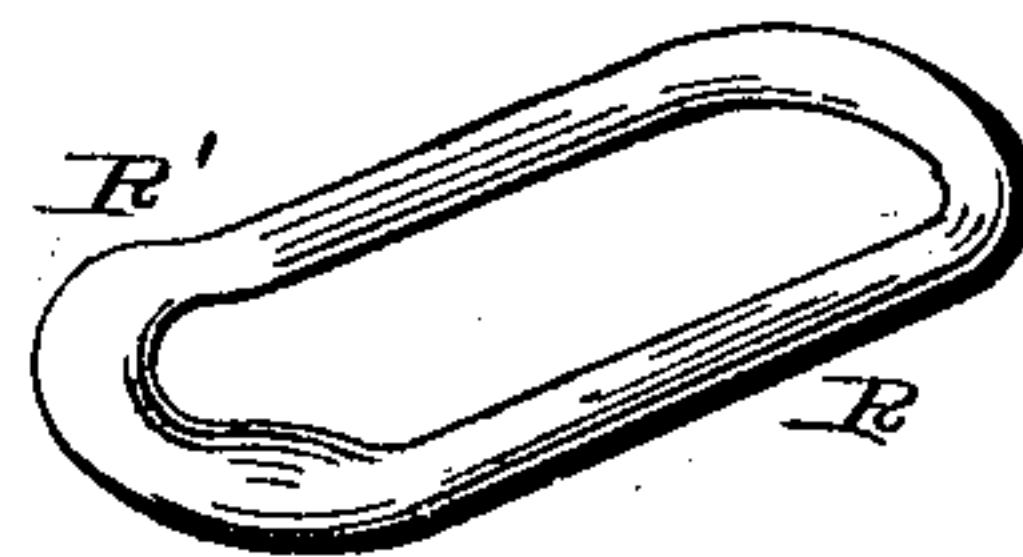
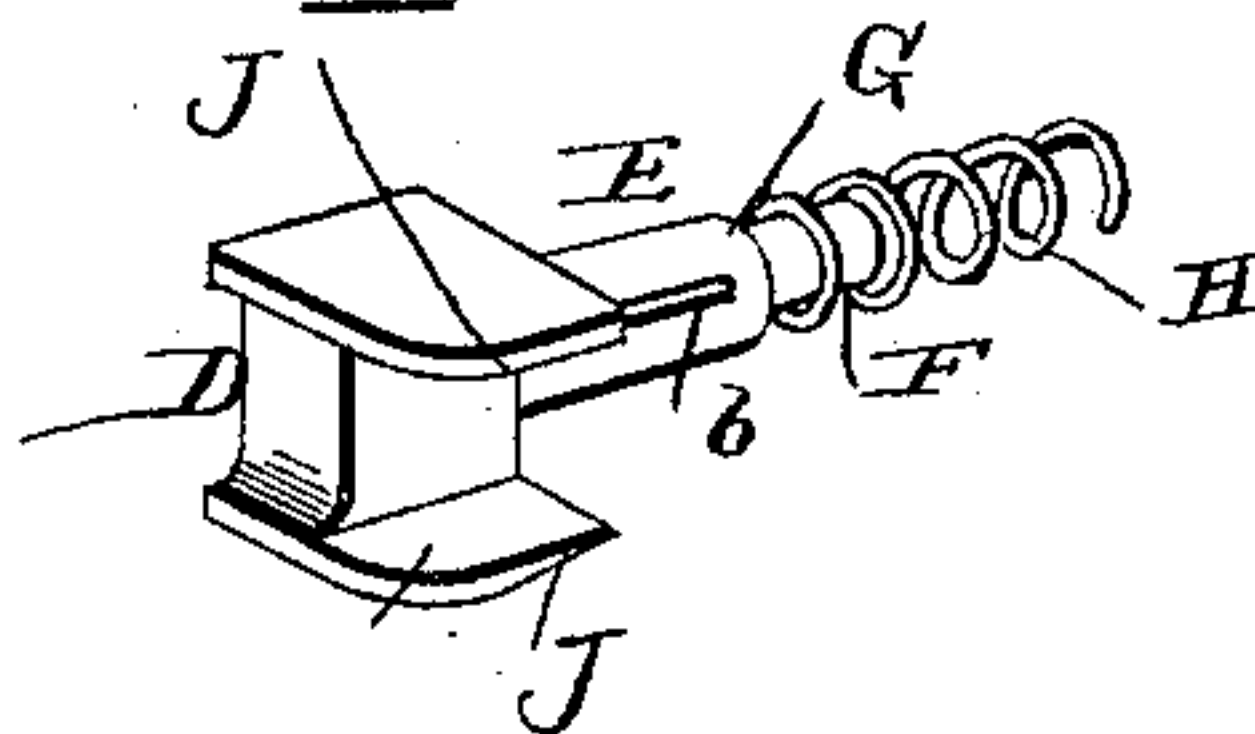


Fig 6



Witnesses  
John Smurle Jr.  
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Edgar D. Shobe.  
By his Attorney Geo. Poulton



# UNITED STATES PATENT OFFICE.

EDGAR D. SHOBE, OF PETERSBURG, WEST VIRGINIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 370,092, dated September 20, 1887.

Application filed March 12, 1887. Serial No. 230,650. (No model.)

*To all whom it may concern:*

Be it known that I, EDGAR D. SHOBE, a citizen of the United States, residing at Petersburg, in the county of Grant and State of West Virginia, 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.

This invention has relation to improvements in car-couplings; and it consists in the construction and novel arrangement of parts, as will be hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of the two draw-heads coupled. Fig. 2 is a horizontal section of one of the draw-heads. Fig. 3 is a cross-section on the line  $x$   $x$ , Fig. 2. Fig. 4 is a longitudinal section. Fig. 5 is a detail perspective view of the link. Fig. 6 is a perspective view of the spring-actuated block of the draw-head for releasing the pin from the link.

Referring to the drawings, the letters A A represent draw-heads, each having a recess, B, with side openings, C, in the end thereof. The side wall of the recess opposite the opening C is sloped outward, for a purpose hereinafter set forth.

The letter D denotes a block having a stud, E, attached thereto. The stud E is provided with a pin, F, and to the shoulder G of the stud is secured a coil-spring, H. The block D is also provided with flanges or projections J, extending from the upper and lower part, and on one side of and in front of the main portion or body of the block.

L represents a recess in the draw-head leading from the recess B, and in which is placed the spring H, pin G, and stud E, the latter being guided by the walls of said recess L, and the spring H bearing against the end thereof, so that the block D is normally kept across or over the groove M in the lower part of the chamber B, the said groove M extending from the opening P to near the outer edge of the wall of the recess B.

The letter N also represents grooves in the lower and upper parts of the chamber B, which serve as guides for the block D. The outer

upper edge of the lower flange J is flush with the bottom of the chamber D.

P represents openings in the walls of the draw-head for the coupling-pins Q.

R is the coupling-link, having an inclined end part, R', forming a thickened portion, and which is adapted to rest in the inclined portion S of the chamber B, so that the link may more reliably operate the block D.

As additional means to guide the block D, and to prevent the same from displacement in case of accident, a pin,  $a$ , is passed through the slot  $b$  in the stud E of the block and connected to the wall of the recess B.

The operation of the device is simple and is as follows: In case of the upsetting or derailling of a car the strain or pressure of the coupling-link is against the block D and forces the same backward, thereby uncovering the groove M, so that the lower end of the pin Q is pushed out of the opening P of the draw-head by the link into the said groove M, and the said link is freed from the pin, whereby the hind car is released from the derailed or upset car.

Having described my invention and the operation thereof, what I claim is—

1. In a car-coupling, the draw-heads with recesses having side openings, and a transverse groove leading from the coupling-pin openings, in combination with a sliding block normally adapted to cover said groove, and a link and coupling-pins, the lower end of the coupling-pin being adapted to move laterally in said transverse groove, when the sliding block uncovers said groove, whereby a car is automatically uncoupled by an upsetting or derailed car, all substantially as shown and described.

2. A car-coupling having a link provided with an inclined end portion, in combination with the pin Q and the draw-head having incline S, substantially as shown and described.

3. In a car-coupling, the draw-head A, having recess B, with lateral groove M and longitudinal recess L, in combination with the sliding block D, having studs E, with pin F and spring G, the link R, and coupling-pin Q, all substantially as shown and described.

4. A car-coupling consisting of draw-heads having recesses with side openings and a

transverse groove leading from the coupling-pin openings therein, a movable block covering said transverse groove, and provided with side and front flanges at top and bottom thereof, and a link and coupling-pins, the lower end of the coupling-pin being adapted to move laterally in said transverse groove when the sliding block uncovers said groove, all substantially as shown and described.

10 5. In a car-coupling, the draw-head A, with chamber B, having guide-grooves N in top and bottom thereof, in combination with a movable block, D, with flanges J, all substantially as shown and described.

15 6. In a car-coupling, a spring-actuated block normally adapted to keep the coupling-pin in proper position, in combination with a

draw-head having recesses and grooves in which said block operates, and a transverse groove leading from coupling-pin opening and normally covered by said block, all substantially as shown and described.

7. A draw-head having means, substantially as described, whereby the coupling pin may be automatically detached by a lateral movement of the pin from the latter in case of the upsetting or derailing of one of the attached cars, as set forth.

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

EDGAR D. SHOBE.

Witnesses:

GEO. C. POULTON,  
R. W. BALLENGER.