

(No Model.)

R. S. RUSSELL.  
CAR COUPLING.

No. 477,577.

Patented June 21, 1892.

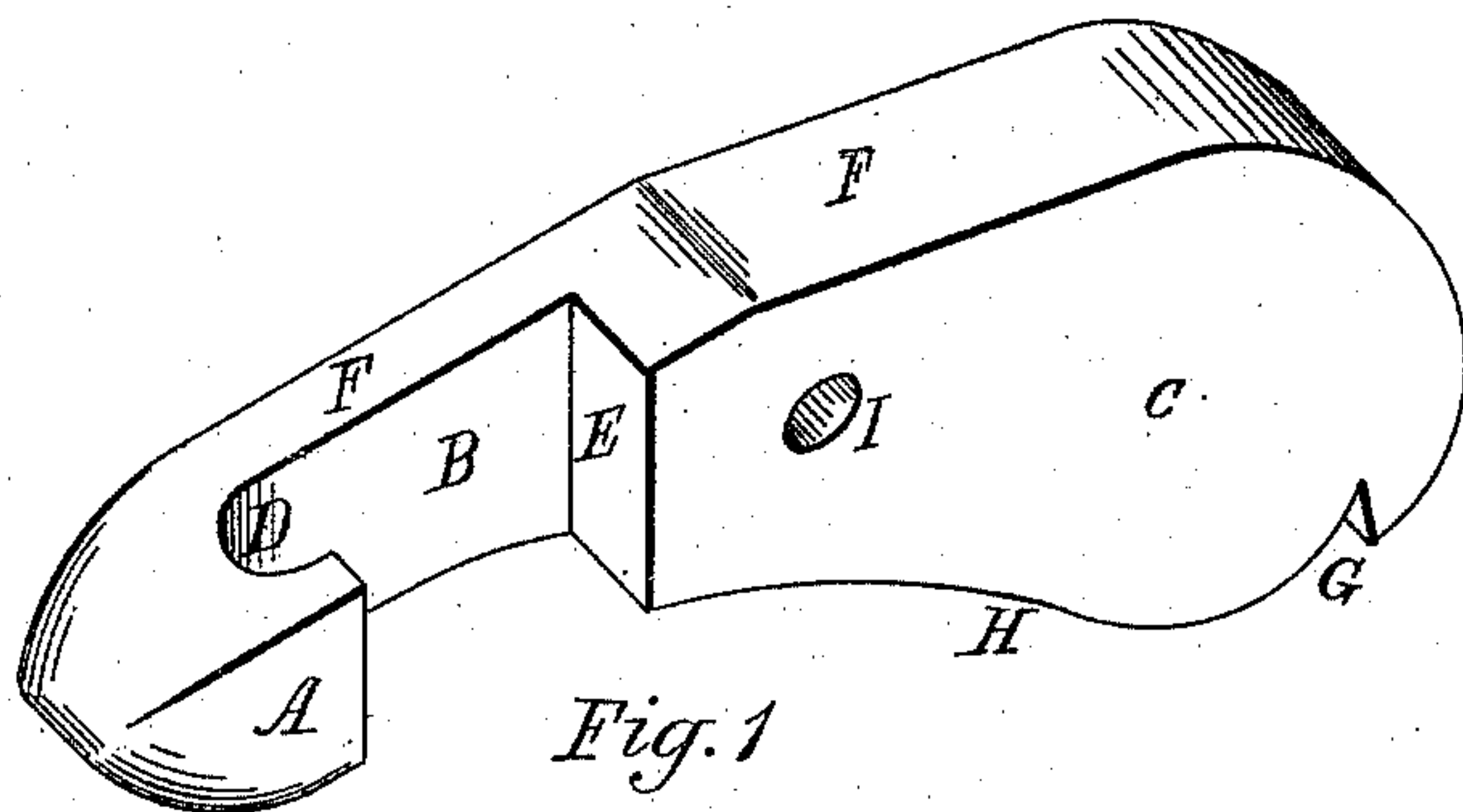


Fig. 1

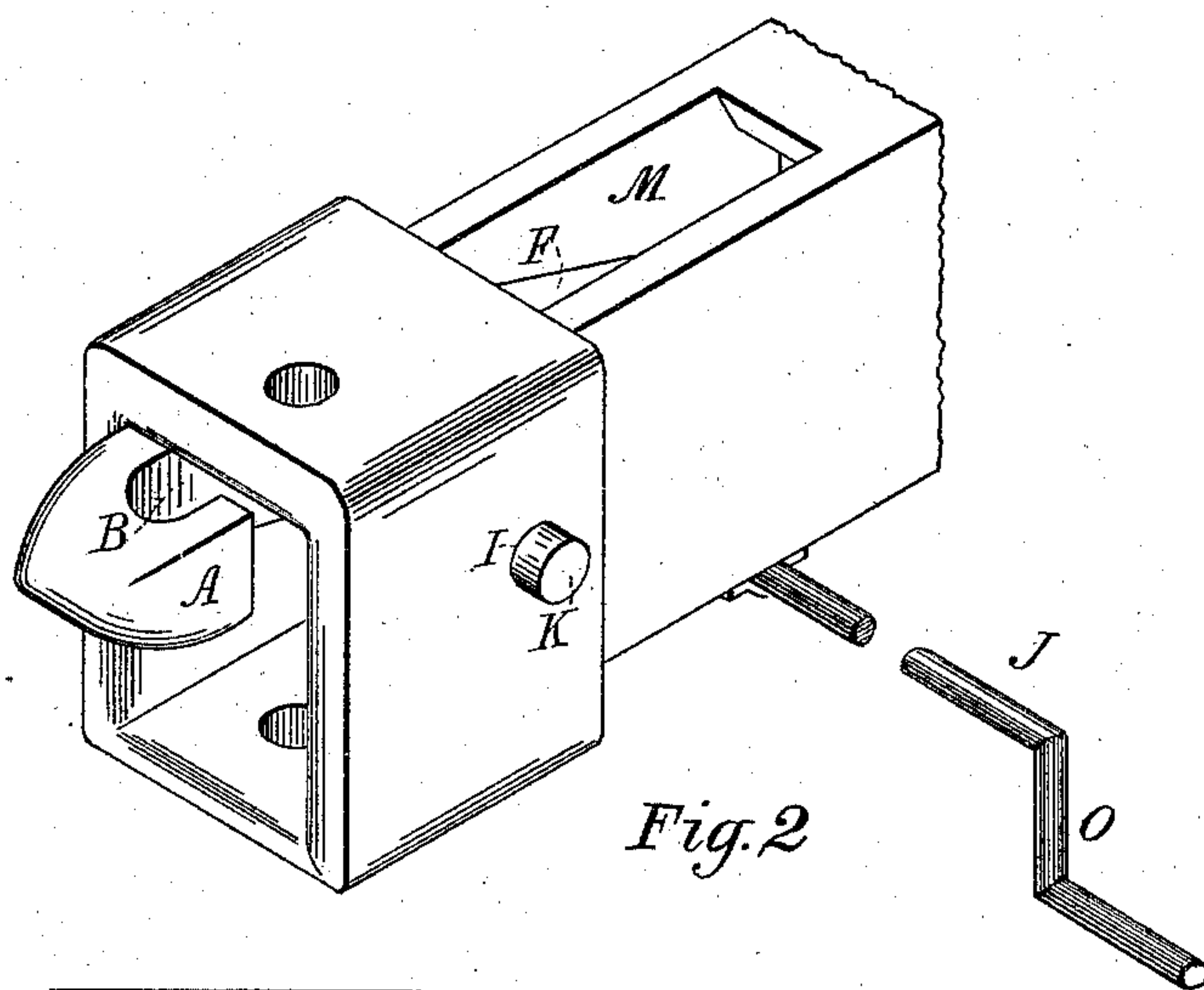


Fig. 2

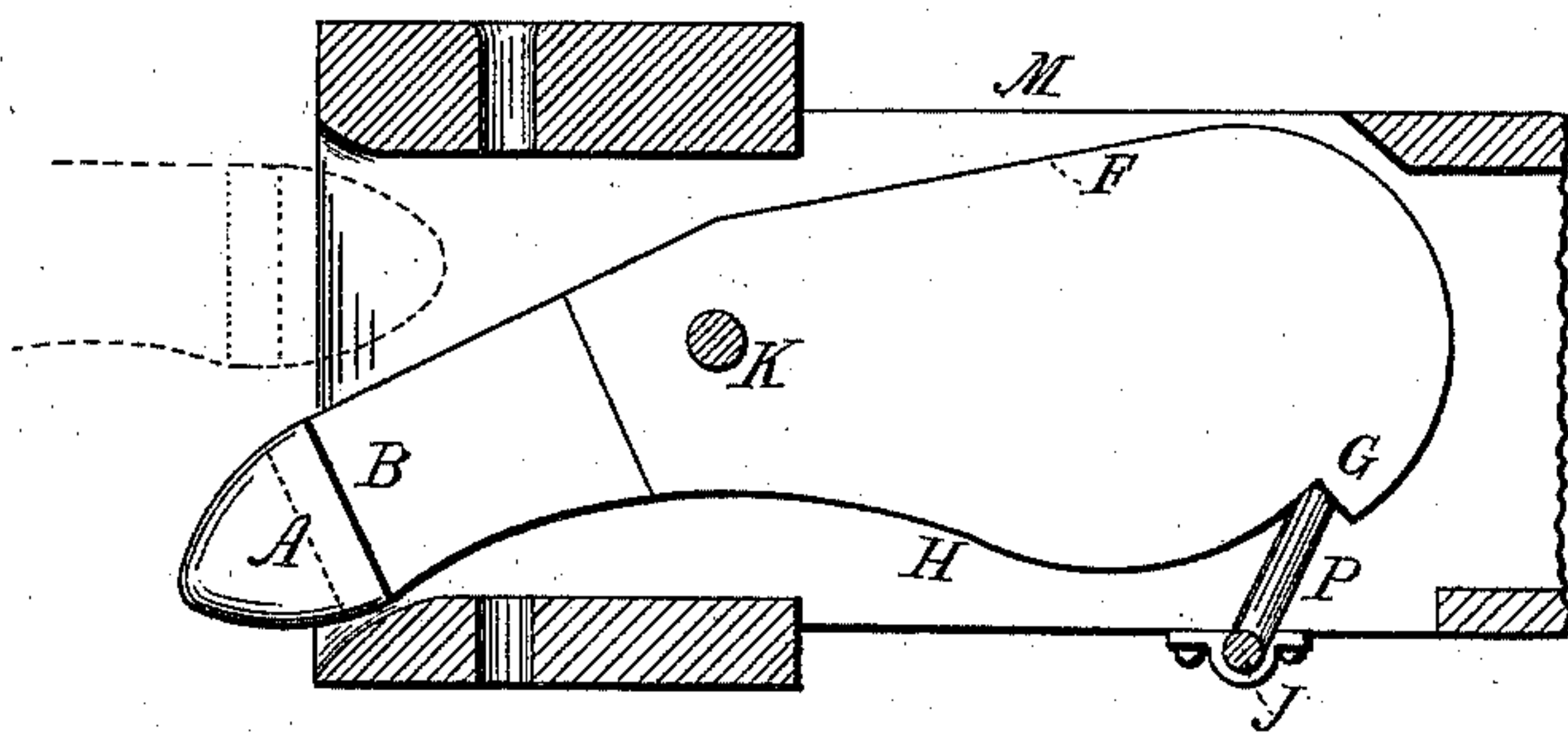


Fig. 3

Witnesses:

Robert S. Russell

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# UNITED STATES PATENT OFFICE.

ROBERT S. RUSSELL, OF BROWNSVILLE, TENNESSEE.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 477,577, dated June 21, 1892.

Application filed March 25, 1891. Serial No. 386,378. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT S. RUSSELL, of Brownsville, in the county of Haywood and State of Tennessee, have invented a new and

5 Improved Car-Coupling; and I do hereby declare the following to be a description of the same, reference being had to the accompanying drawings, forming part of this specification.

10 This invention relates generally to car-couplers, and particularly to certain improvements in that class thereof known as "twin-jaw" couplers.

15 The object of my invention is to provide an automatic coupler of this description that shall be exceedingly cheap and simple in construction and highly safe and efficient in operation.

20 A further object is to provide means for coupling and uncoupling from the side of the car, and also to provide means for locking the parts in either a coupled or uncoupled position.

25 With these various objects in view my invention consists in the details of construction and novelties of combination hereinafter described, and pointed out in the claims.

30 In the drawings forming a part of this specification, Figure 1 is a detail side view of the coupling-jaw. Fig. 2 is a perspective view of my improved coupler, and Fig. 3 is a longitudinal section of the same.

35 Referring to the drawings, C indicates the draw-head, which is secured beneath the end of car in the usual or any approved manner, and has openings M in the top and bottom of same near the rear end. The draw-head is also provided with the usual pin-passages to enable the improved coupler to be used with

40 an ordinary pin-and-link coupler, when necessary. A coupling-jaw F is pivoted within the draw-head upon a horizontal shaft I, passed transversely through the sides of the draw-head, said shaft being held in place by

45 any suitable means. The coupling-jaw is pivoted between its ends, the rear portion being made heavier than the forward portion for the purpose of holding said forward end normally in an elevated position, and upon the

50 under side of said rear portion near its rear end is produced a forwardly-projecting shoul-

der G, the purpose of which will appear farther on. The forward portion of the coupling-jaw tapers gradually, as shown, and between the pivot and forward end of jaw a 55 vertical recess B is produced in the inner side of the jaw, thus providing a horizontal hook A upon the end of the coupling-jaw and a vertical shoulder E adjacent to the pivot. The forward end of the jaw is beveled to a 60 point, whereby two opposing jaws are permitted to move past each other when effecting a coupling. A rock-shaft J is journaled beneath the draw-head, the outer end of said shaft being provided with an operating-crank 65 O. An arm P is connected with the rock-shaft, preferably integral therewith, and is adapted to be brought into engagement with the rear end of the coupling-jaw to elevate the same.

70 In operation, when two couplers constructed in accordance with my invention are brought together the forward ends of the coupling-jaws are held in an elevated position by the heavy rear ends. The forward ends being 75 beveled, permits the said ends to pass each other, and as soon as the hooked portions have passed each other said hooks slide into the vertical recess produced in the opposite coupling-jaw, and an automatic coupling is thus 80 effected. The vertical shoulder E serves to limit the inward movement of the coupling-jaw. This movement is also limited in a measure by means of a vertical shoulder 85 produced upon the opposite wall of the draw-head. To uncouple the jaws, the rock-shaft is turned by means of crank-handle, thus bringing the arm P in contact with the rear 90 end of coupling-jaw, elevating said end and lowering the forward end, whereby the opposing coupling-jaw is released and is free to be withdrawn.

Should it be desired to hold the jaw ready for coupling, the arm P is elevated until it engages the shoulder G. By this operation 95 the forward end of jaw is somewhat depressed, and as the opposite coupling-jaw enters the draw-head the forward end of jaw is further depressed, which releases the arm P, which drops by its weight, and thus permits 100 the weighted end of coupling-jaw to descend and complete the coupling.



To hold the jaw against coupling, the arm P is made to engage the coupling-jaw forward of the shoulder G.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a car-coupler, the combination, with a draw-head, of a coupling-jaw pivoted within the draw-head between its ends, the rear portion of said jaw being weighted and the forward portion provided with a hook projecting at right angles to the body of the jaw and adapted to engage a similar hook of an opposing coupler, substantially as shown and described.

2. In a car-coupler, the combination, with a draw-head open at its top and bottom, of a coupling-jaw having a horizontal hook at its forward end and a rock-shaft journaled beneath the draw-head and adapted to work through the opening in bottom of same to contact with rear end of coupling-jaw, substantially as shown and described.

3. The combination, with a draw-head, of coupling-jaw pivoted within the same having a horizontal hook at forward end and a shoulder upon the lower face of rear end, said rear end being weighted, and a rock-shaft journaled beneath the draw-head and carrying an arm adapted to contact with coupling-jaw and shoulder, substantially as shown and described.

4. The combination, with a draw-head, of the coupling-jaw having a weighted rear portion and a tapering forward portion, said forward portion having a vertical recess produced in its inner side providing a hook at the forward end, a forwardly-projecting shoulder upon the lower rear end of coupling-jaw, the rock-shaft, and elevating-arm, all arranged substantially as shown and described.

ROBERT S. RUSSELL.

Witnesses:

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