

(No Model.)

C. J. FORTSON.

CAR COUPLING.

No. 287,270.

Patented Oct. 23, 1883.

Fig. 1.

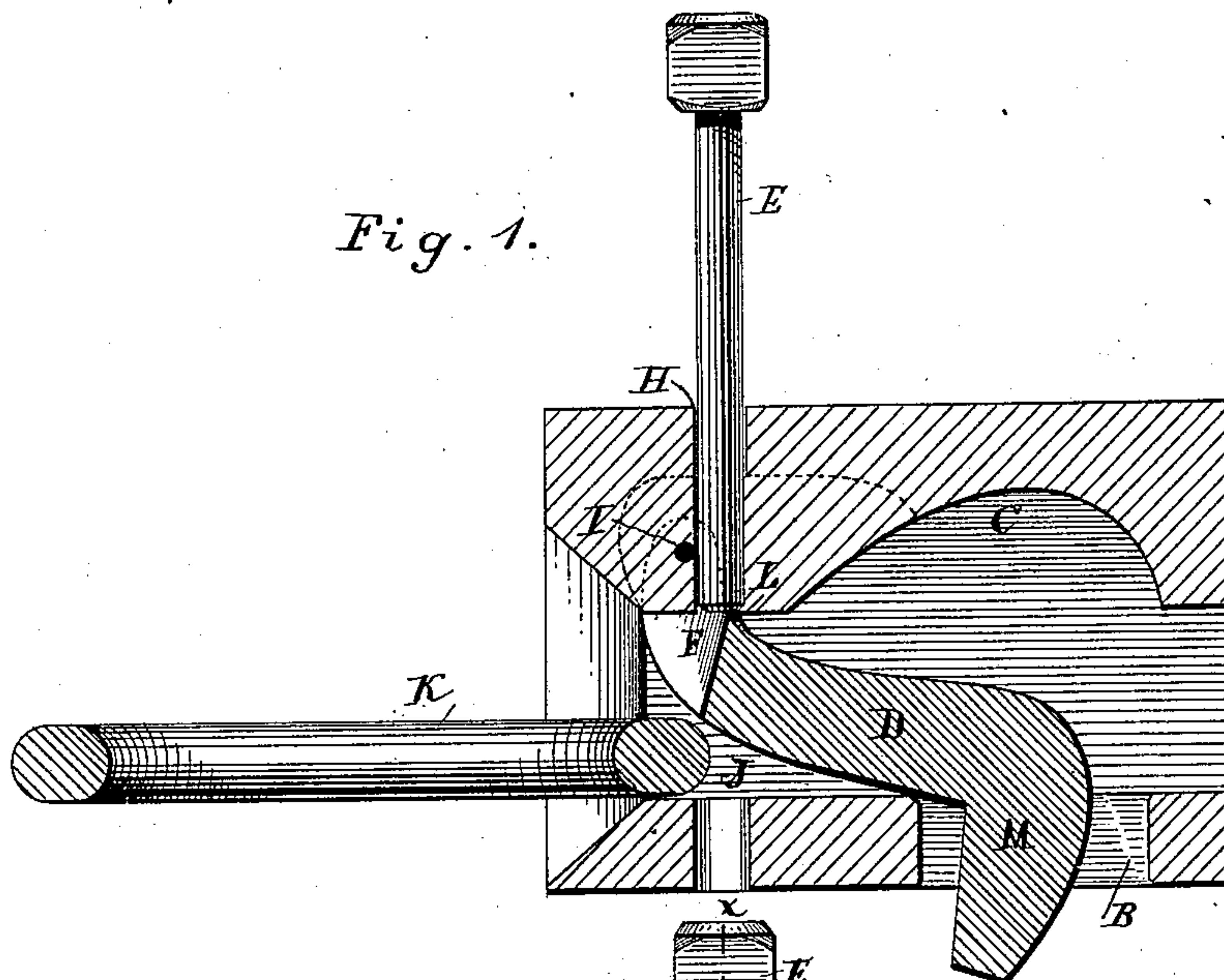


Fig. 2.

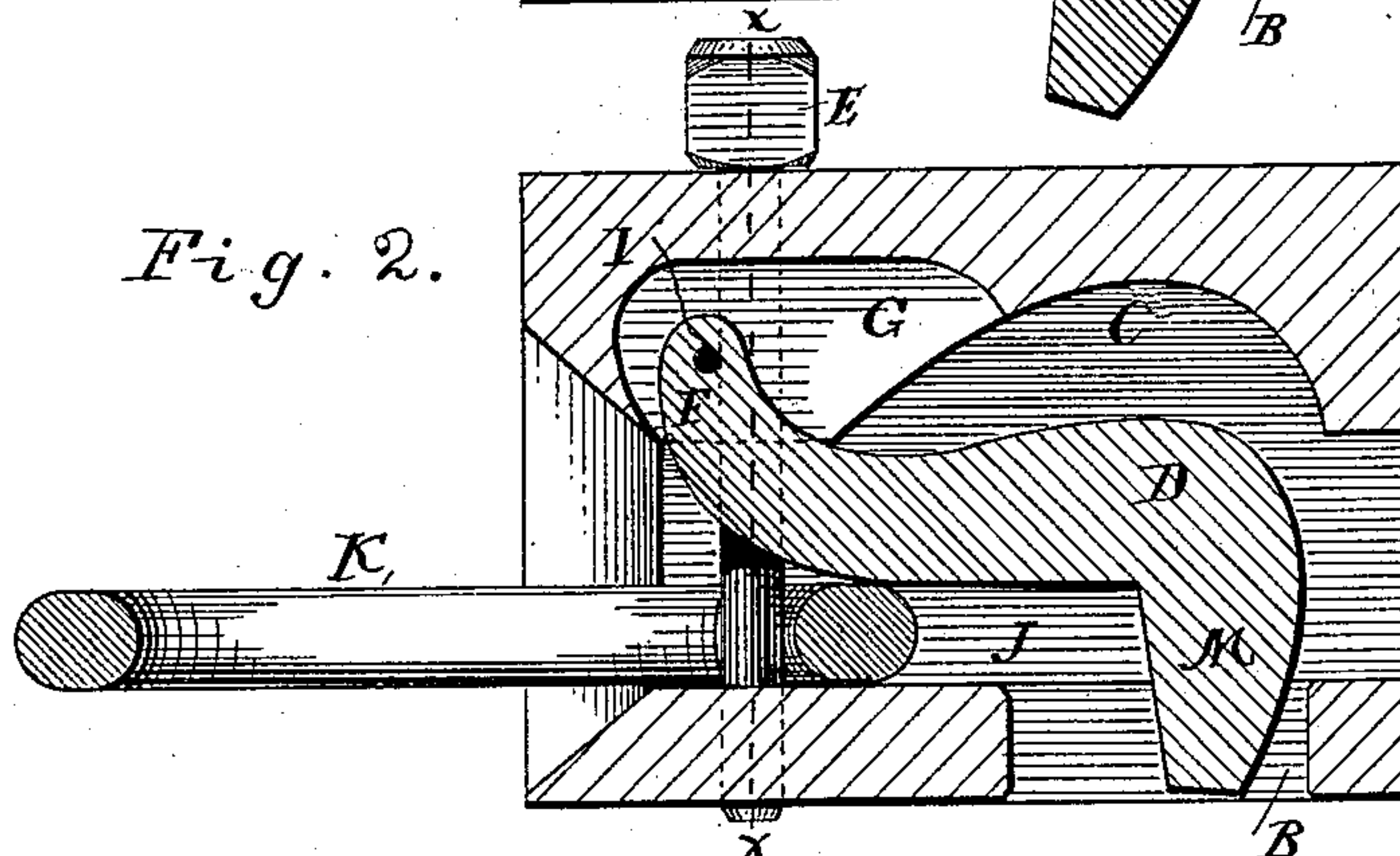
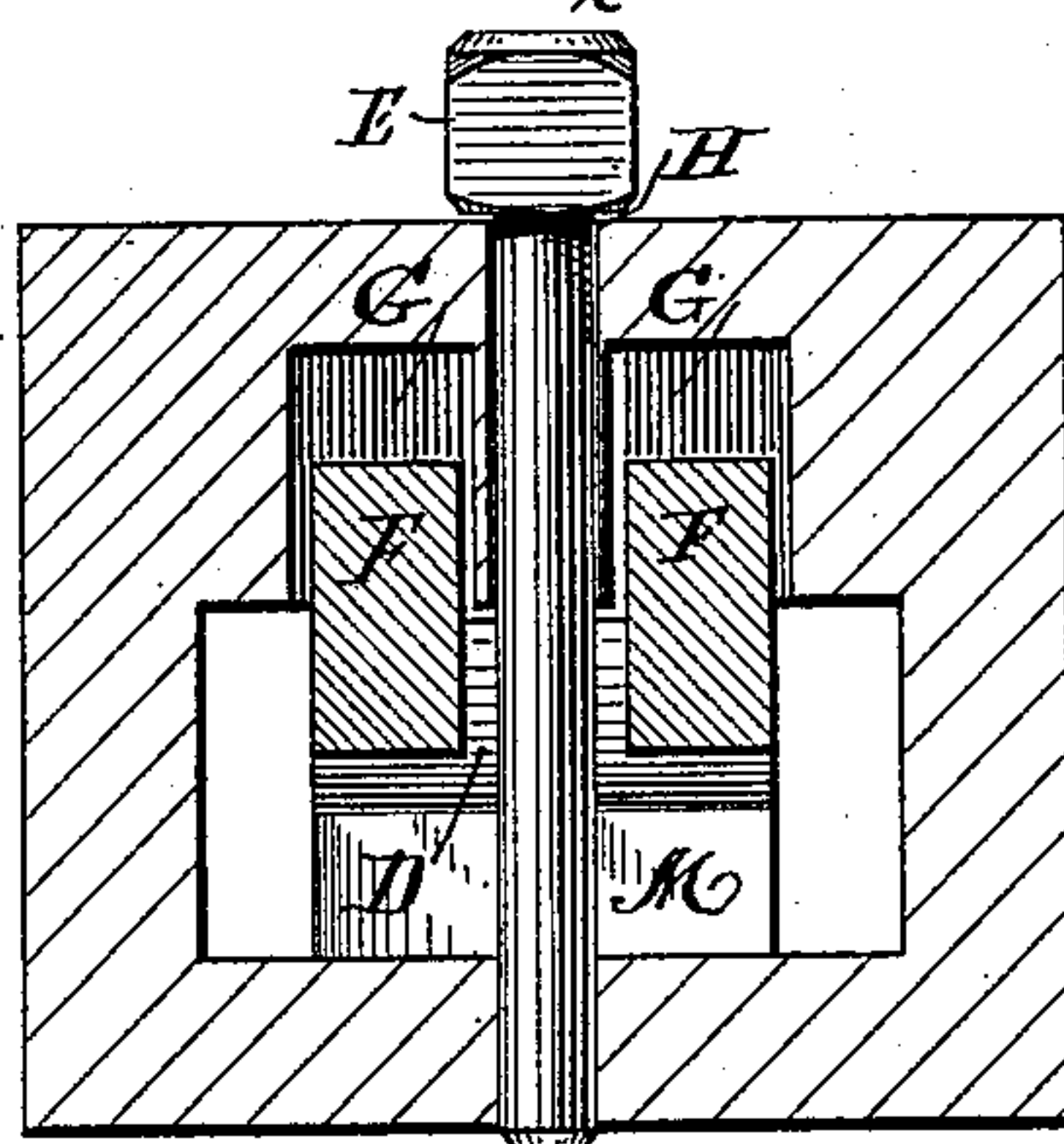


Fig. 3.



WITNESSES:

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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 287,270, dated October 23, 1883.

Application filed July 18, 1883. (No model.)

To all whom it may concern:

Be it known that I, CHARLES JOHN FORTSON, of Washington, in the county of Wilkes and State of Georgia, have invented a new and
5 useful Improvement in Car-Couplings, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, forming part of this specification.

This invention relates to pin-and-link couplings in which the pin is supported for automatic coupling with a link by a gravity-catch; and the invention consists of the construction hereinafter described and claimed.

In the drawings, Figure 1 is a vertical longitudinal section of the draw-head of a car, showing my invention in position for automatic coupling. Fig. 2 is a similar view, showing the link coupled with the pin; and Fig. 3 is a cross-section on line *xx* of Fig. 2,
15 the link being omitted.

A indicates a draw-head, having an opening, B, in its under side leading to a chamber, C, in which is pivoted a gravity-catch, D, for holding the pin E in a raised position.

25 The object of the opening B is to provide for inserting the catch D into the draw-head without the necessity of enlarging the mouth of the draw-head for this purpose, for where the mouth is enlarged the link cannot so well
30 be held firmly in a horizontal position for automatic coupling.

The forward end of the catch D is provided with two perforated arms, F, which are pivoted in two recesses, G, formed in the upper
35 part of the draw-head on opposite sides and in advance of the perforation H, in which the pin E works. The arms F are pivoted on a bolt, I, inserted through the sides of the draw-head in advance of the perforation H. The
40 catch D, being thus pivoted at its forward end, will incline downward by gravity at its rear end, partially closing the opening J, which receives the link K. This inclined position of the catch D causes a shoulder, L, formed
45 between the arms F to be thrown forward immediately under the opening or perforation H in the upper part of the draw-head, so that the lower end of the pin E may rest on said shoulder, and thus be supported in a raised
50 position, preparatory to coupling with a link. The shoulder which supports the pin is thus located between the pivot and the long end of

the catch, and is adapted to support the pin regardless of the weight of the catch. This construction is important, inasmuch as a comparatively light or small catch can be used,
55 which dispenses with the necessity of a large chamber in the draw-head, and therefore makes it easier to support the link in a horizontal position.

The lower surface of the catch D is beveled, so that the link K may be easily guided under it, which action causes the catch to be lifted at the rear end, throwing the shoulder L rearward, and allowing the pin E to drop through
60 the link.

The rear end of the catch is provided with a lug or projection, M, which serves to weight said end, and this lug is beveled rearward from the link, so that in case any pressure
70 from the link is exerted upon it it will rise against the rear end of chamber C and throw the strain upon the latter. The opening B accommodates the lug M, when the catch is allowed to drop by gravity.

75 As the catch, by its form and weight, is adapted to hold the link in a horizontal position, the link of one draw-head will be automatically guided into coupling position with another draw-head. For uncoupling the cars,
80 a chain or lever may be attached to the pin and arranged in convenient position for being reached without passing between the cars.

Heretofore a gravity-catch has been pivoted at a point behind the coupling-pin, so as to
85 support the pin on its forward or short end. This construction, which I disclaim, requires a given weight in the catch to counterbalance the weight of the pin, and this given weight presupposes a certain bulk, which requires a
90 comparatively large mouth in the draw-head to receive it. As above stated, however, it is important, where the ordinary link is used, that the chamber or mouth of the draw-head shall not be unduly enlarged for the purpose
95 of inserting the catch, since the link cannot so well be held in a horizontal position.

What I claim is—

1. The combination, with the draw-head, the pin, and the link, of the catch, pivoted by
100 two arms at its forward end in the upper part of the draw-head and in advance of the said pin, and having a shoulder between said arms adapted to support the pin in a raised posi-

tion when its rear end is allowed to fall by gravity, substantially as shown and described.

2. The combination, with the link and pin, of the draw-head, having an opening, B, in its under side leading to a chamber, C, at the rear of its mouth, and the gravity-catch D, having arms F, shoulder L, and projection M,

beveled rearward from the link, substantially as shown and described.

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Witnesses:

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