

No. 707,048.

Patented Aug. 12, 1902.

J. A. CHUBB.

UNCOUPLING MECHANISM FOR CARS.

(Application filed Mar. 5, 1902.)

(No Model.)

Fig. 2.

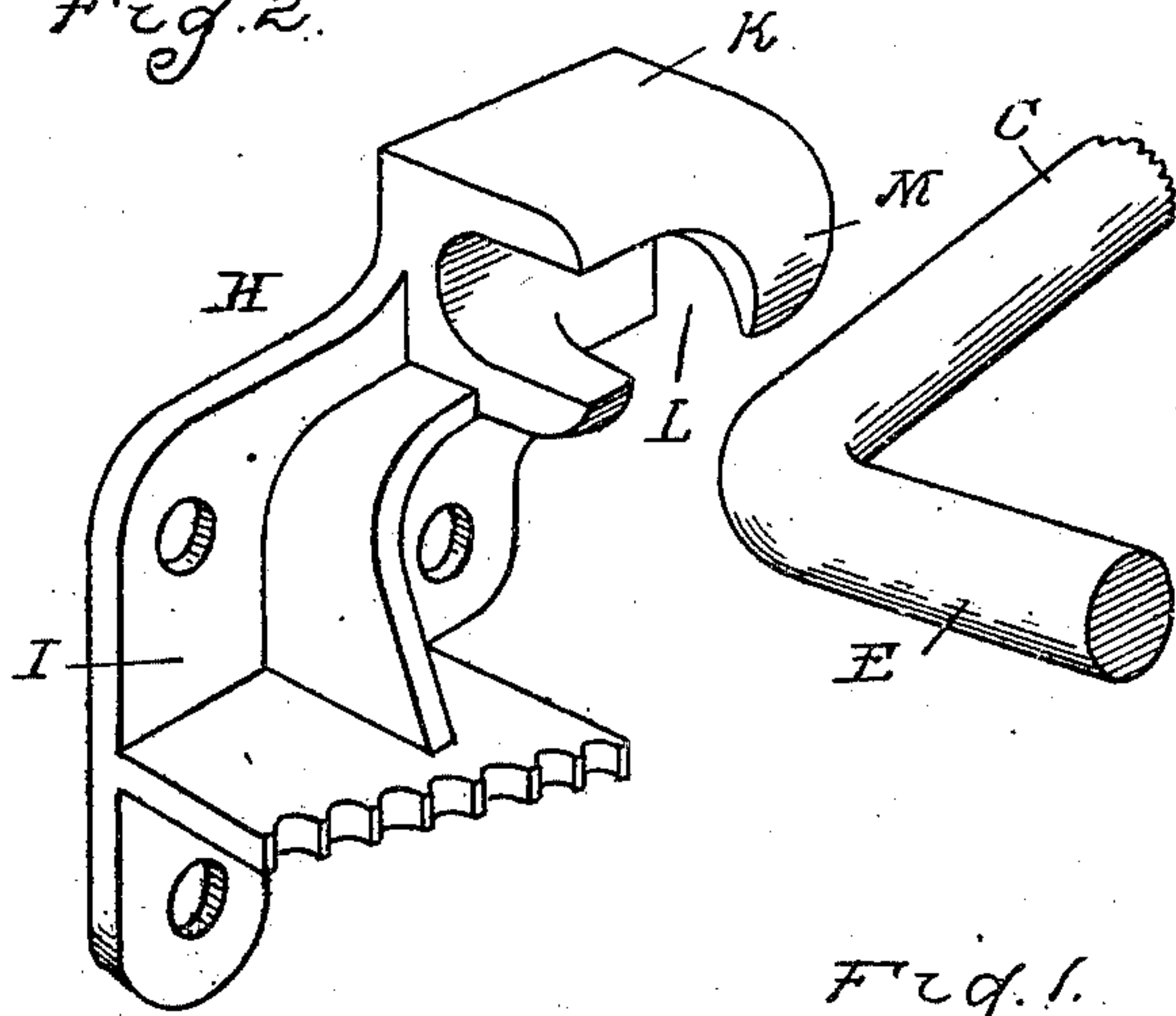


Fig. 3.

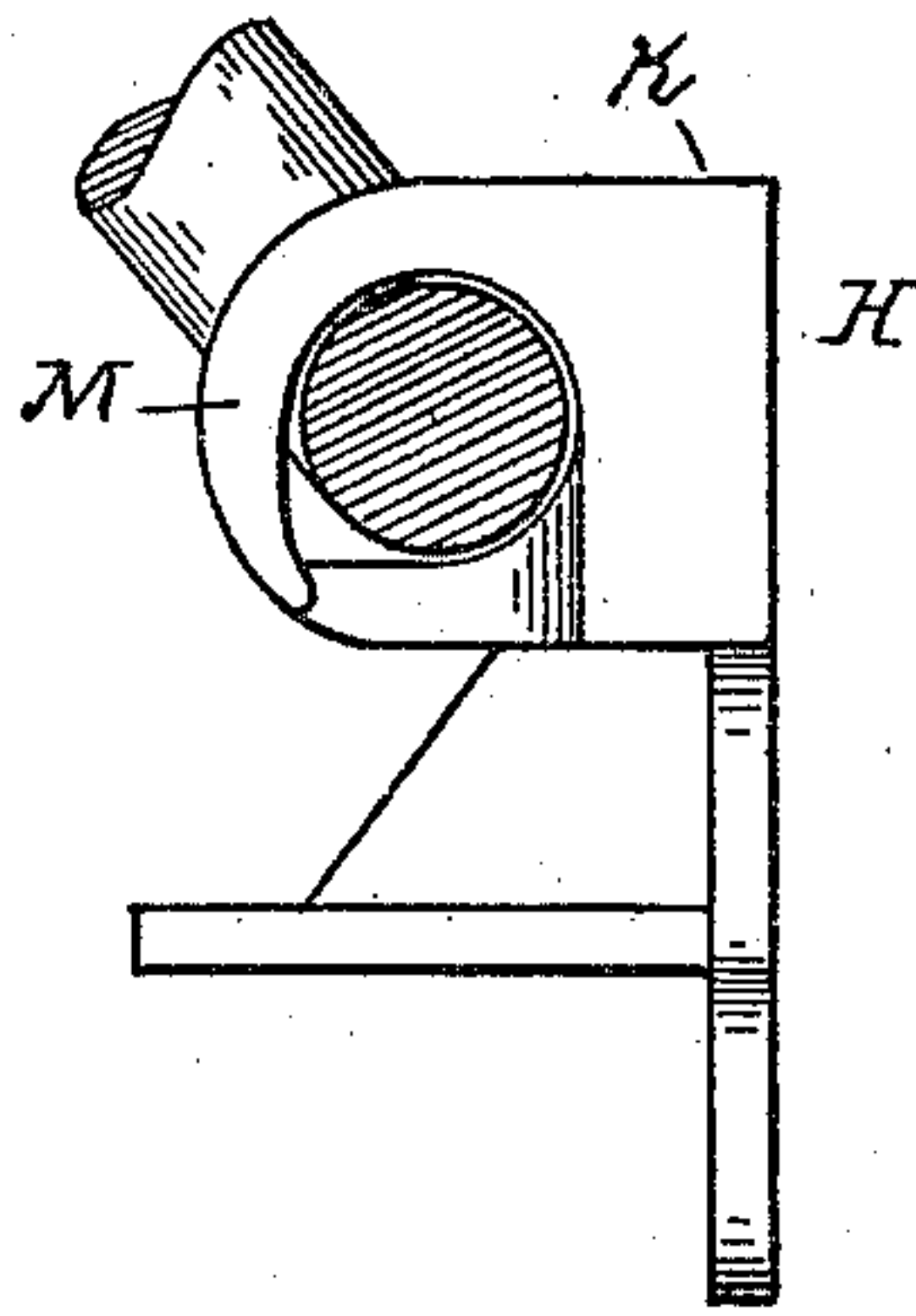
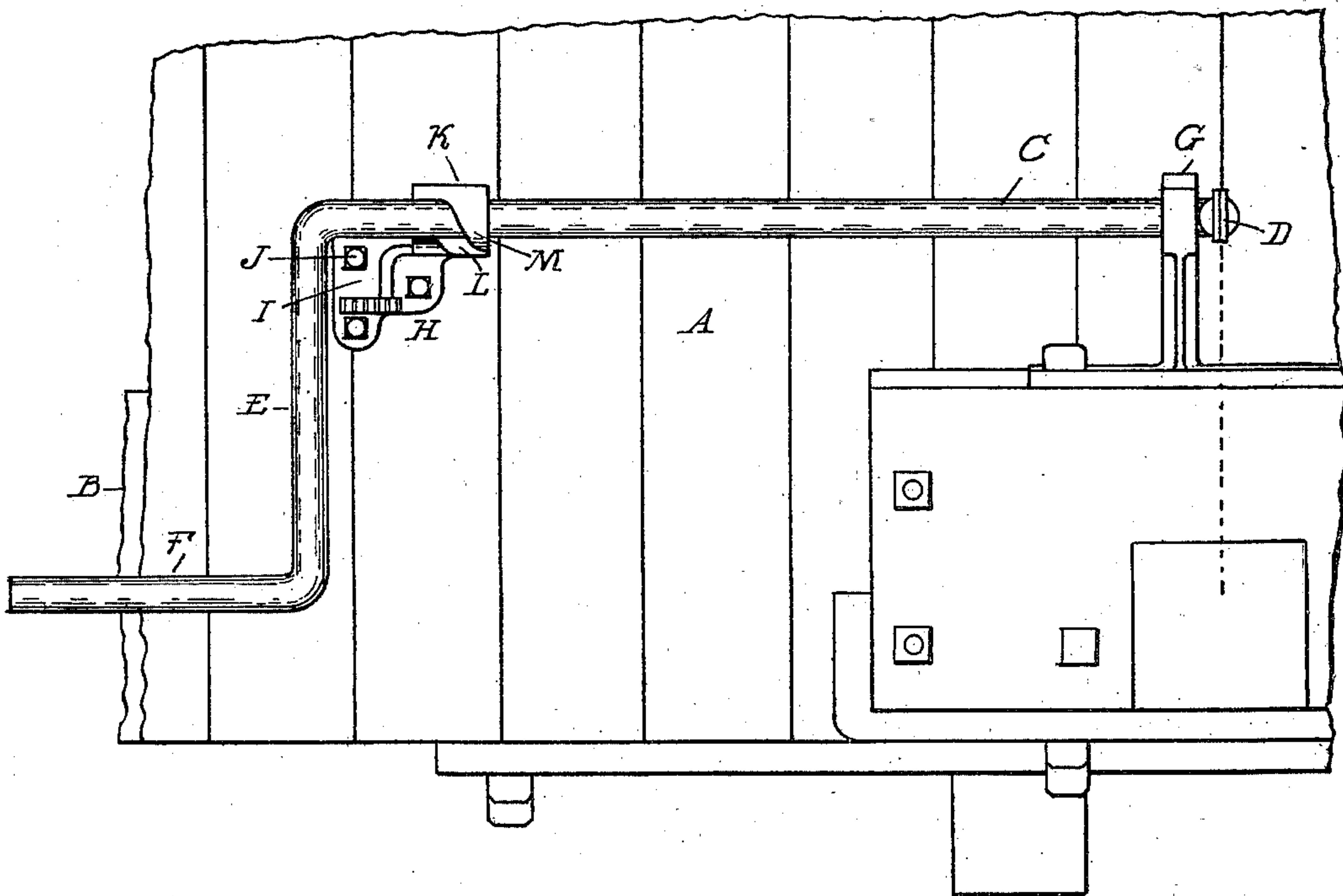


Fig. 1.



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# UNITED STATES PATENT OFFICE.

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## UNCOUPLING MECHANISM FOR CARS.

SPECIFICATION forming part of Letters Patent No. 707,048, dated August 12, 1902.

Application filed March 5, 1902. Serial No. 96,809. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES A. CHUBB, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Uncoupling Mechanism for Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention relates to uncoupling mechanism for car-couplers, especially designed for use in connection with freight-cars.

With the standard type of automatic couplers at present in use on many of the railroads the uncoupling is effected by a connection comprising a rock-shaft extending across the end of the car and having an operating crank-handle at its outer end and a rock-arm at its inner end, the latter being  
20 connected by a chain or link with the locking-dog of the coupler. In this mechanism the rock-shaft is usually journaled in two bearings, one of which is secured near the center of the end of the car-body and the other one  
25 at the side of said end, and these castings are securely fixed in position by screws or bolts. It frequently happens that for purpose of repair due to the breakage of some part it is necessary to remove this shaft from its bearings, and as heretofore constructed this can  
30 only be done by detaching at least one of said bearings from the car. The latter operation is difficult for the reason that the screws or bolts are often so corroded that a great deal  
35 of time is consumed in detaching them.

It is the object of the present invention to provide a simple construction in which the rock-shaft may be quickly detached at any time without the removal of bolts or screws.

40 To this end the invention consists in the peculiar construction of a bearing for the rock-shaft, as will be more fully hereinafter described.

In the drawings, Figure 1 is an end elevation of a car, showing the rock-shaft of the uncoupling mechanism as secured thereon by my improved form of bearing. Fig. 2 is a perspective of a bearing, showing the manner of disengaging the shaft therefrom. Fig. 3  
50 is a side elevation thereof.

A is the car, and B is the end sill thereof.

As the particular form of automatic coupling used is not essential to the present invention, I deem it unnecessary to illustrate the same.

55 C is the rock-shaft of the uncoupling mechanism, which at its inner end is provided with a rock-arm D, extending outward from the car and centrally above the coupling. E is the crank-arm formed at the opposite end of the shaft C and provided at its end with a handle portion F. At its inner end shaft C may be journaled in any suitable bearing, such as G, which is secured to the car and need not be detached when the shaft is re-  
60 moved.

H is my improved form of bearing. This comprises the plate I, which is secured to the sill by bolts J, and K is the bearing for the shaft, formed integral with said plate. As  
70 heretofore constructed the bearing K has been in the form of a closed ring or solid box, with which the shaft C is engaged before the bearing is bolted to the car. With such a construction it is impossible to remove the shaft  
75 without detaching the bearing, for the reason that the rock-arm D will prevent its removal by disengaging the inner end, while the crank E will prevent disengagement from the outer end. With my improved construction I form  
80 the bearing K with a longitudinal slot L therein, which is of sufficient size to permit of passing the crank E therethrough, and thus disengaging it from the bearing. As, however, the crank E is usually of the same diameter  
85 as the shaft C, it is obvious that if a straight slot were formed through the bearing, parallel with the axis thereof and of sufficient size to receive the crank, this would be equivalent to removing one-half of the bearing, and thus  
90 doing away with its effectiveness as a support. With my construction I avoid this difficulty by making the slot L at an angle to the plane of the axis, so as to leave an integral portion M at one end of the bearing which is  
95 opposite the slot at the other end of said bearing. Thus the shaft C will be as securely held in position as where a solid box is employed. Whenever it is desired to remove the shaft, the crank-arm E is lifted sufficiently  
100 to engage it with the end of the slot L, and the shaft C is then moved endwise until the



crank-arm has passed through the slot L and out of engagement with the bearings. The shaft may then be disengaged from the opposite bearing by turning it sufficiently to pass  
5 around the bend of the rock-arm D, and as the bearing G is provided with suitable clearance this operation is easily effected.

What I claim as my invention is—

1. In uncoupling mechanism for car-couplers, the combination with a rock-shaft having a crank-arm thereon, of a bearing for said shaft having formed therein, for the passage of said arm, a slot equal in width to the full diameter of said shaft, said bearing having  
15 portions upon opposite sides of said slot which together prevent lateral displacement of said shaft in any direction.

2. In uncoupling mechanism for car-couplers, the combination with a rock-shaft extending from the side to the center of said car at the end thereof, and having crank-arms at opposite sides thereof, of bearings for the inner and outer ends of said shaft adjacent to said respective cranks, and secured to the  
25 end sill of the car, said outer bearing being longitudinally slotted for the passage of said

outer crank therethrough, and said slot being inclined to the axis of the bearing for the purpose described.

3. In an uncoupling mechanism for car-couplers, the combination with a rock-shaft having crank-arms at opposite ends thereof, of the bearing therefor comprising the securing-plate I and the journal K having the spiral slot L therethrough for the purpose described.  
35

4. In uncoupling mechanism for car-couplers, the combination with a rock-shaft having a portion thereof bent to form a rock-arm, of a bearing for said shaft having a longitudinal slot therein, of a width equal to the diameter of said arm, said slot being bent to form projecting portions on opposite sides thereof for retaining said shaft from lateral displacement.  
40

In testimony whereof I affix my signature in presence of two witnesses.  
45

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Witnesses:

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