

(No Model.)

J. W. KIRBY.
CAR COUPLING.

No. 460,917.

Patented Oct. 6, 1891.

Fig. 1.

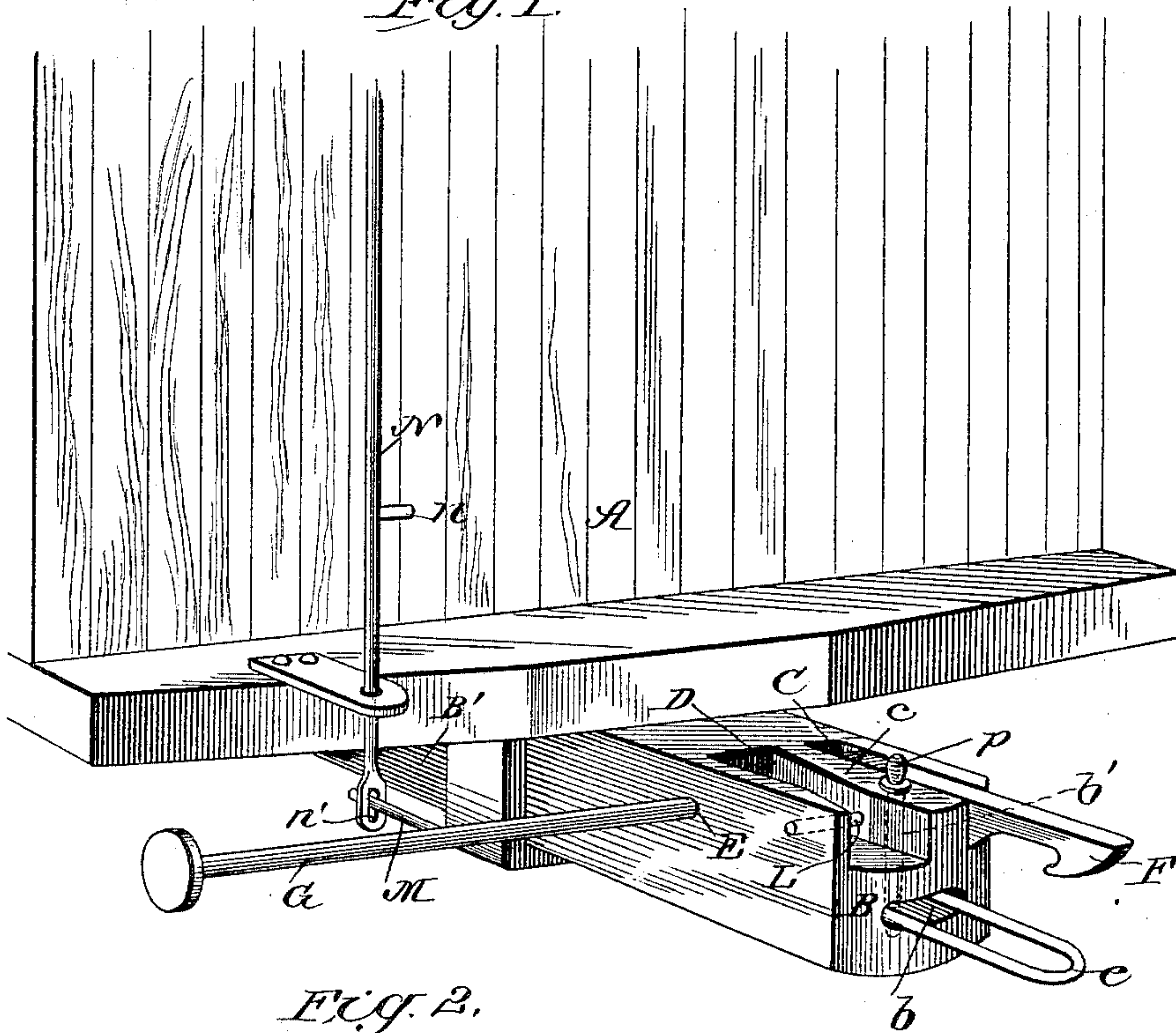


Fig. 2.

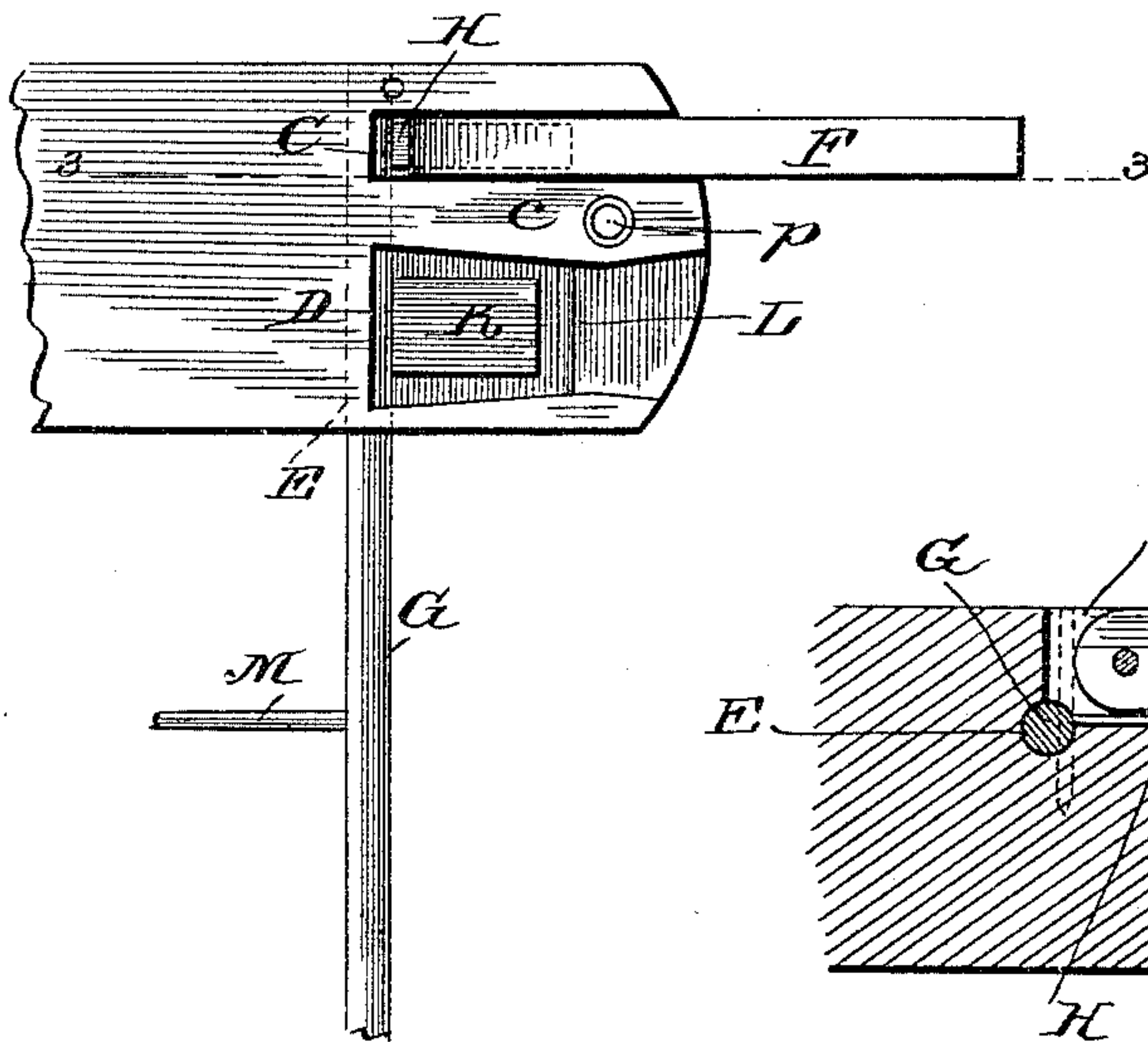
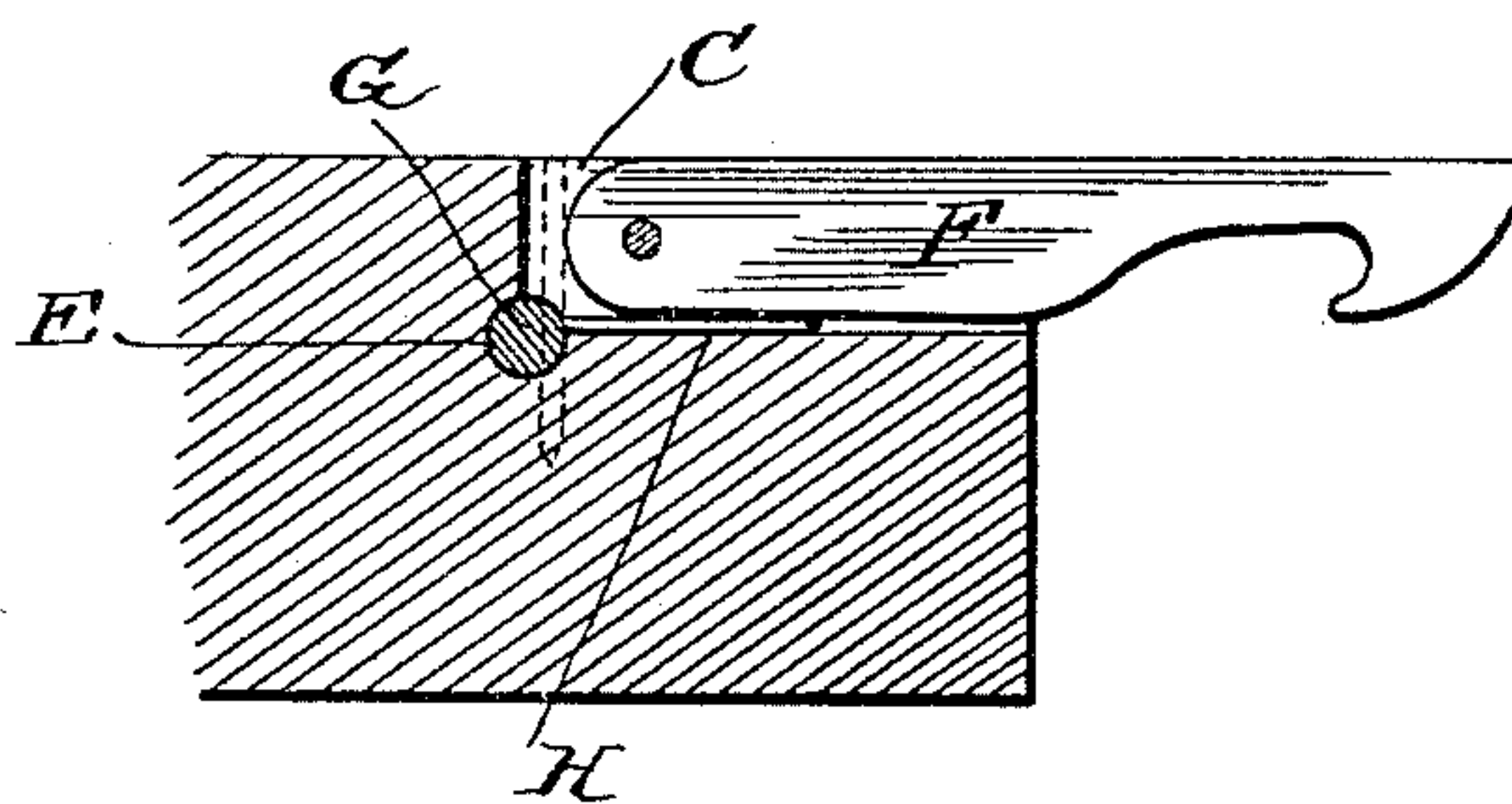


Fig. 3.



WITNESSES:

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JEREMIAH W. KIRBY, OF GREAT FALLS, MONTANA, ASSIGNOR OF ONE-
FOURTH TO HANS PETERSON, OF SAME PLACE.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 460,917, dated October 6, 1891.

Application filed May 18, 1891. Serial No. 393,231. (No model.)

To all whom it may concern:

Be it known that I, JEREMIAH W. KIRBY, of Great Falls, in the county of Cascade and State of Montana, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

This invention relates generally to car-couplers, and more particularly to that class thereof known as "hook-and-catch" couplers; and it has for its object to provide a coupler of this description that shall be simple and durable in construction and easy and efficient in operation.

With these objects in view my invention consists in the peculiar construction of the various elements and their novel combination or arrangement, all of which will be more fully hereinafter described and claimed.

In the drawings, forming a part of this specification, Figure 1 is a perspective view of my improved coupling. Fig. 2 is a top plan view; and Fig. 3 is a vertical section on line 3 3, Fig. 2.

Referring to the drawings, A indicates the end of a car, to which my improved coupler is attached, said coupler consisting of the draw-head B and draw-bar B', the said bar being of the usual or any approved pattern, and is secured to the end of the car in the usual or any approved manner. The draw-head B is formed with a horizontal cavity *b* at its forward end, said cavity being intended to receive a link *l*, and passing vertically through the draw-head is an aperture *b'*, adapted to receive a coupling-pin *p*.

In the upper face of the draw-head are produced two longitudinal recesses C and D, said recesses opening outward at the forward end of the head, the coupling-pin working through the partition *c*, separating the recesses.

A transverse bore E is made in the draw-head at the rear of the recesses, the forward portion of the bore communicating with the rear ends of the recesses.

A coupling-hook F is pivoted in the recess C, near the rear end of the same, and in the transverse bore E is arranged a rock-shaft G, said shaft having a forwardly-projecting arm H secured thereto and resting in the recess C beneath the coupling-hook F, said arm being

adapted to lift the hook when the rock-shaft is turned rearward. An arm K is also secured to the rock-shaft, and rests within the recess D, and a short distance forward of said arm, and preferably to the rear of the coupling-pin, is arranged a transverse catch-bar L, upon which the hook of the opposite coupler catches and holds, and at the same time the catch-bar L is engaged by the hooked link of an opposite coupler. The hooked link engages the catch-bar of the opposite coupler, the positions of the recesses C and D being, of course, reversed in opposing couplers. The coupling-hooks have beveled heads, whereby the cars can be automatically coupled when brought together, and in order to uncouple the same the rock-shaft is turned rearward, elevating the forwardly-projecting arms, which raise the rear end of its hooked link and the head of the opposite hooked link. One end of the rock-shaft extends some distance outward, whereby the operator is enabled to uncouple the cars without going between the same, and the opposite end is locked by a key to prevent any lateral movement of said shaft.

The recess D is somewhat wider than the recess C, and it is also made flaring at its front and rear ends to allow the hooked link to play in the same while rounding curves, &c.

The outer end of the rock-shaft may be provided with a hand wheel or lever when applied to flat-cars; but when applied to box-cars a crank-arm M is attached to the rear side of said shaft, and connected with said crank-arm is the vertical operating-rod N, said rod extending to the top of the car, and intermediate the top and bottom of the car is provided with hand-grips *n*. The lower end of the rod is provided with an aperture or slot *n'*, in which the rear end of the crank-arm rests.

The end of the operating-rod is apertured or slotted to allow the draw-head to play back and forth without disturbing the said vertical rod N and crank-arm M.

By means of the cavity *b*, vertical aperture, and pin *p*, my improved coupler is capable of being coupled with the ordinary link-and-pin coupler.

Having thus described my invention, what I claim as new is—

1. In a car-coupler, the combination, with
5 a draw-head having longitudinal recesses in
its upper face and a longitudinal partition
separating the said recesses, of the transverse
rock-shaft, the lifting-arms attached to the
rock-shaft and resting in the longitudinal re-
cesses, the coupling-hook pivoted at the rear
10 end of one of the recesses, and the transverse
catch-bar arranged in the other recess inter-
mediate its ends, substantially as shown and
described.

2. In a car-coupler, the combination, with

a draw-head having longitudinal recesses in 15
its upper face, one of said recesses being
wider than the other and flaring at its front
and rear end, of the transverse catch-bar ar-
ranged in the wider recess, the hooked link
pivoted in the narrow recess, and the trans- 20
verse rock-shaft and lifting-arms attached
thereto, all arranged substantially as shown
and described.

JEREMIAH W. KIRBY.

Witnesses:

ULYSSES G. WHITE,
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