

(No Model.)

2 Sheets—Sheet 1.

S. McCAMMANT.
CAR COUPLING.

No. 591,927.

Patented Oct. 19, 1897.

FIG. 1.

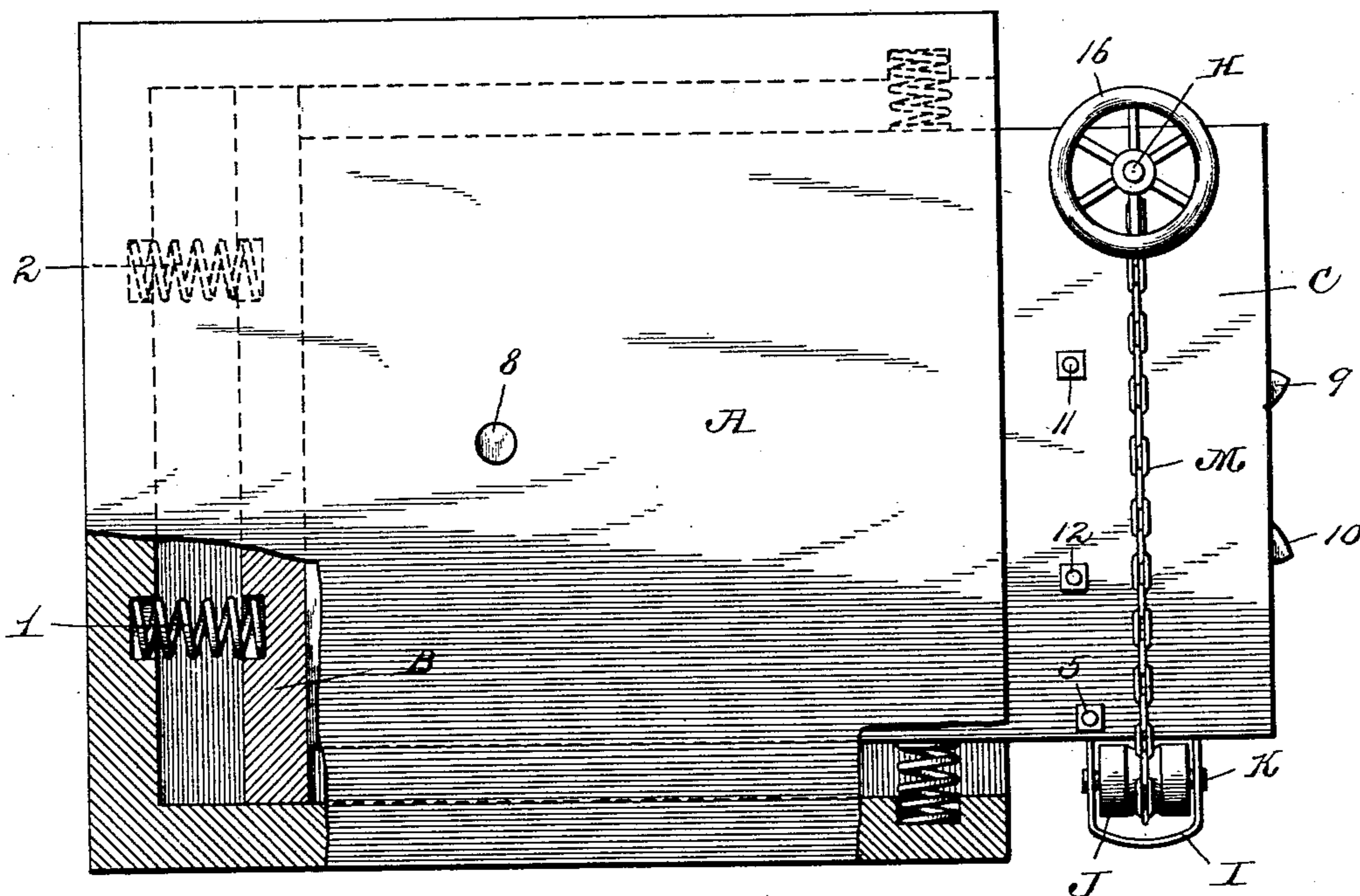
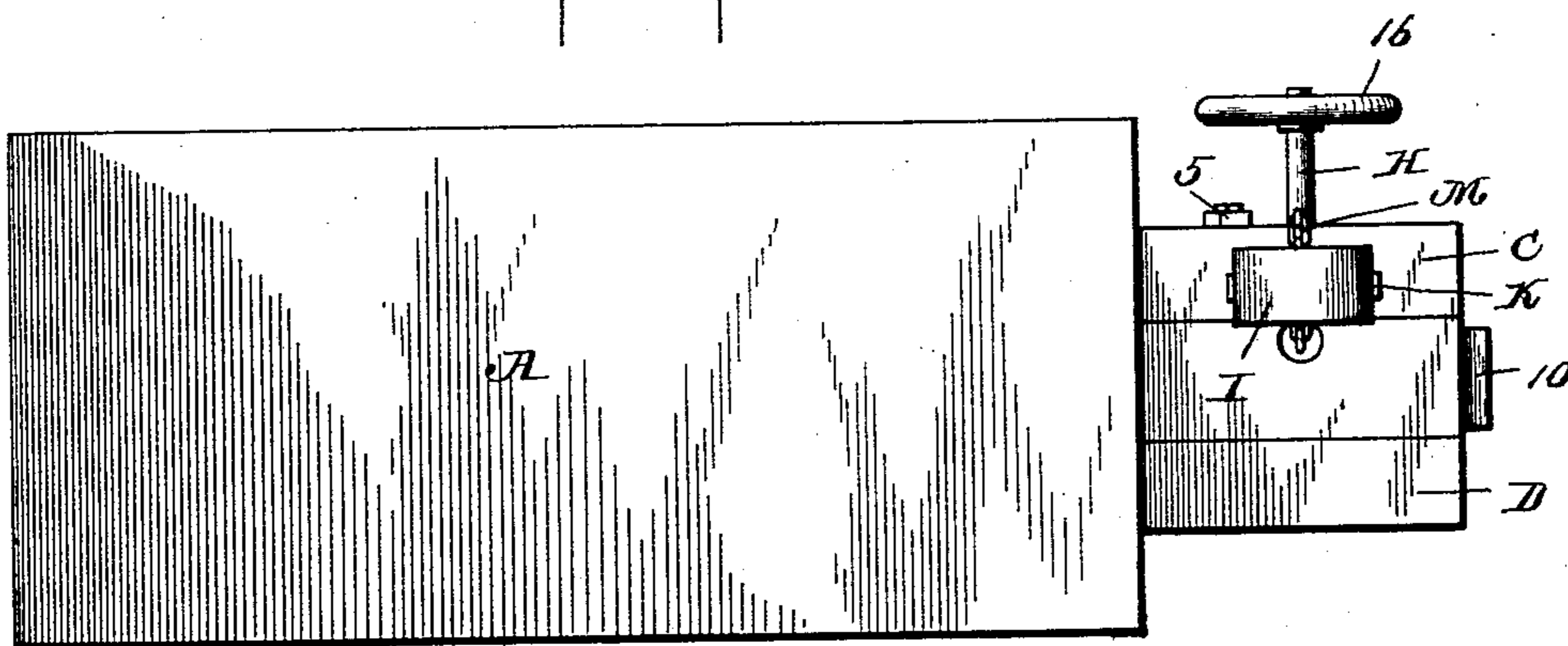


FIG. 2.



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(No Model.)

2 Sheets—Sheet 2.

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FIG. 3.

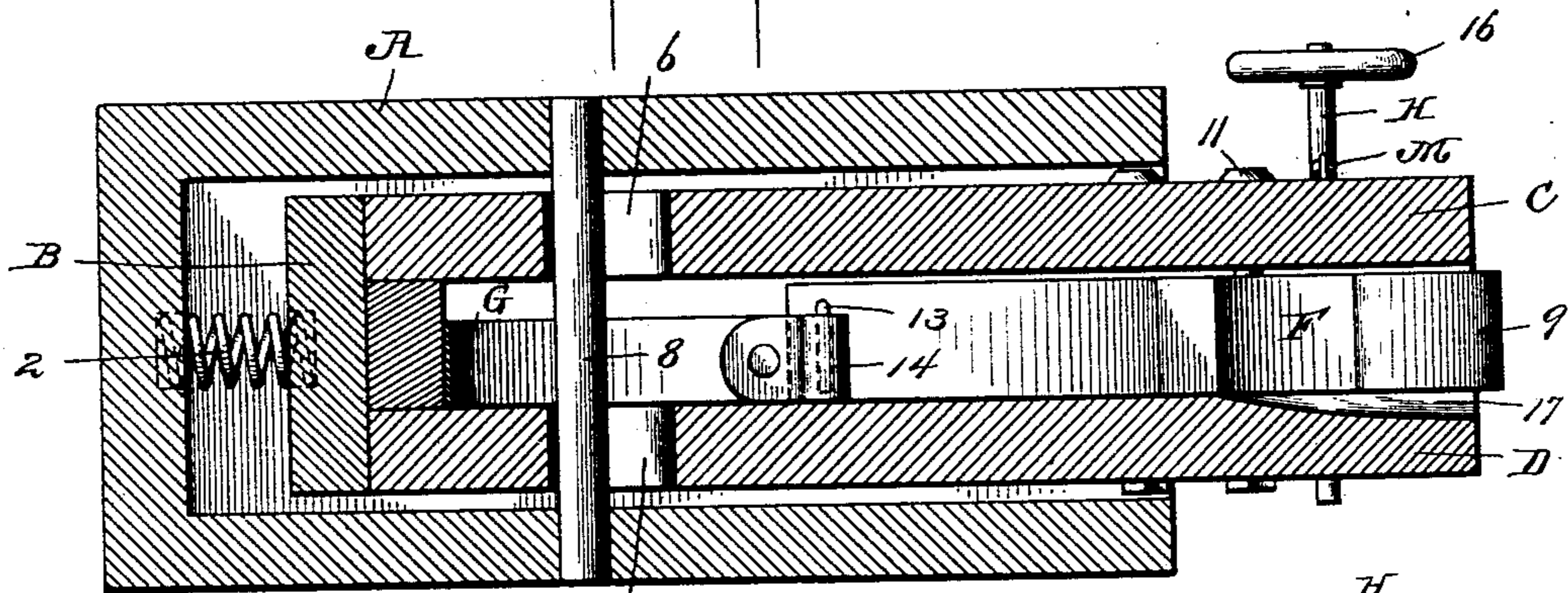


FIG. 4.

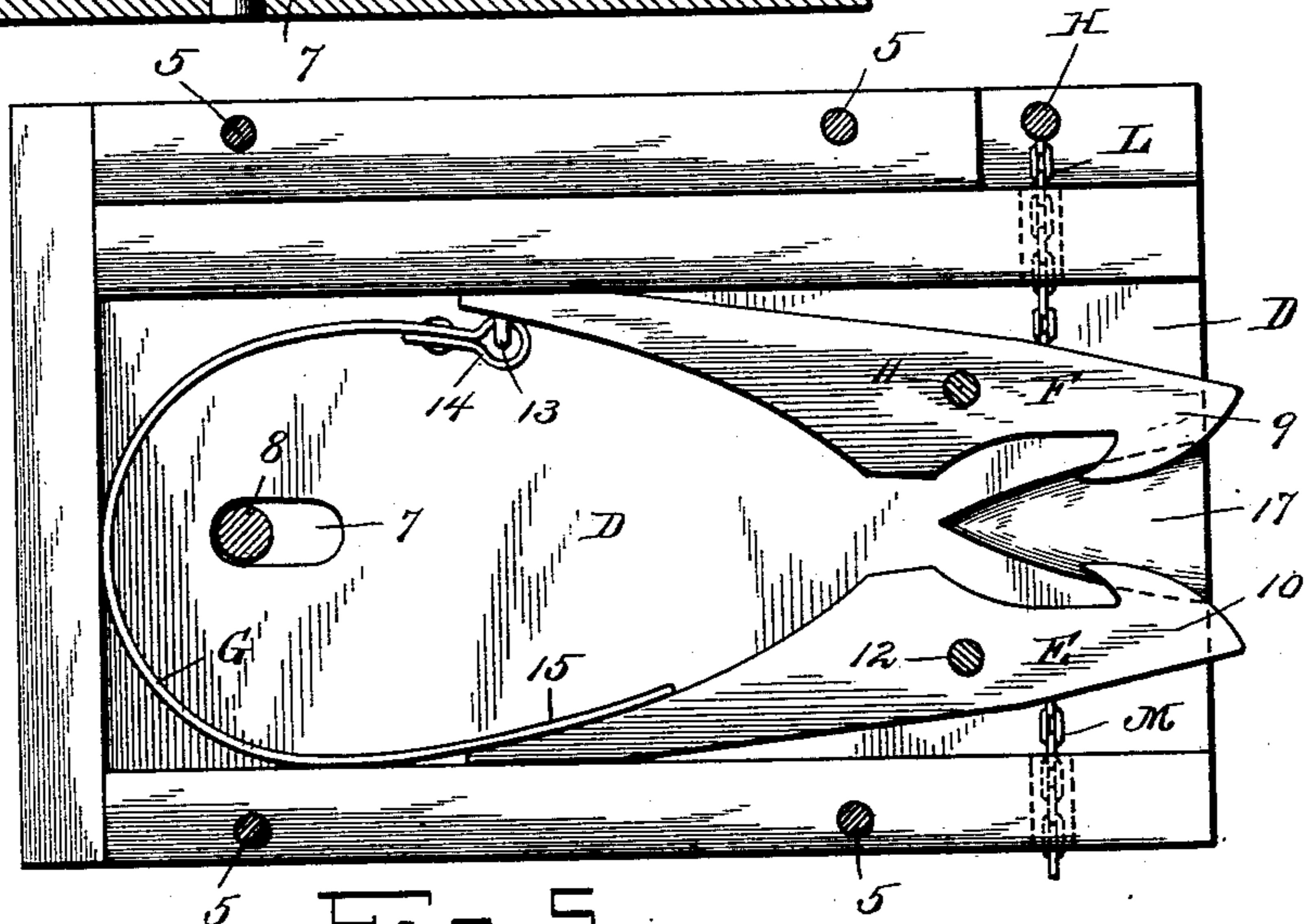
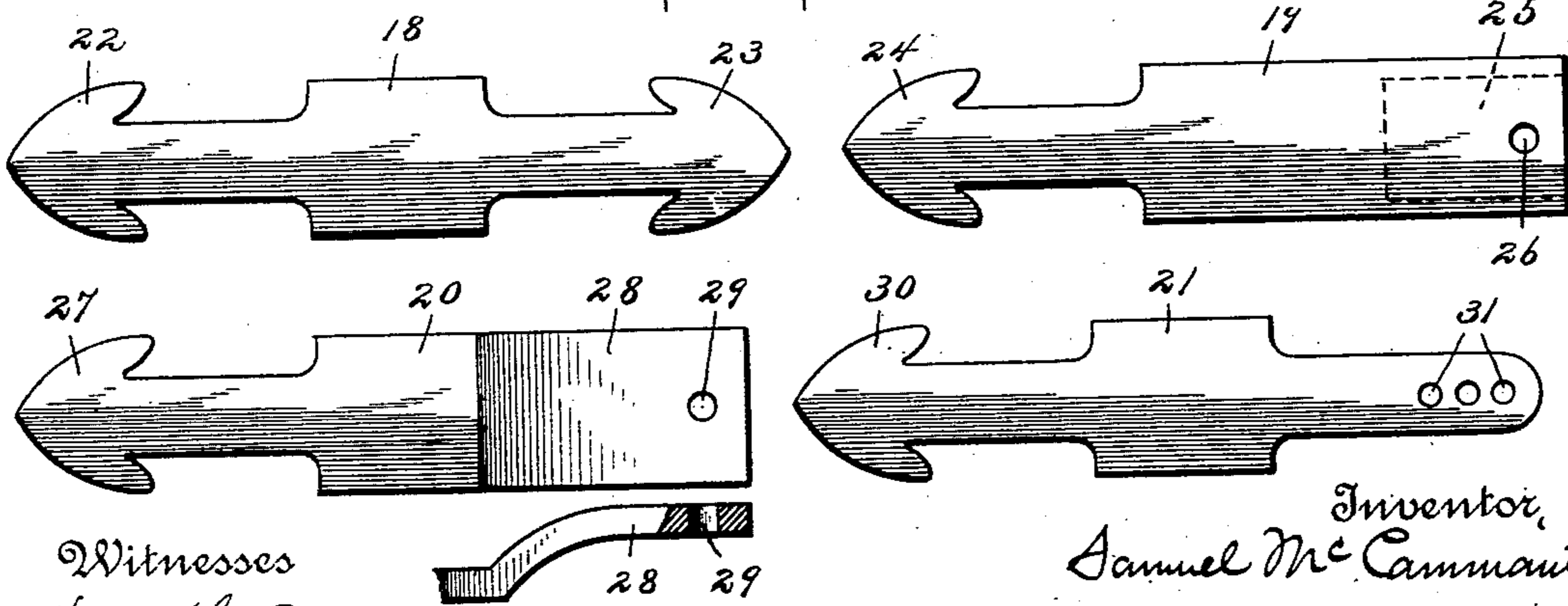


FIG. 5.



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UNITED STATES PATENT OFFICE.

SAMUEL McCAMMANT, OF WHEATON, MINNESOTA.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 591,927, dated October 19, 1897.

Application filed July 7, 1896. Serial No. 598,287. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL McCAMMANT, a citizen of the United States, residing at Wheaton, in the county of Traverse and State of Minnesota, have invented certain new and useful Improvements in Car-Couplers; 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.

My invention relates to car-couplers.

My object is to provide an improved car-coupler of simple and cheap construction, so that the impact during coupling will be more perfectly cushioned, and, further, to provide improved means for allowing lateral movement of the coupler and to cushion said movement.

A still further object is to provide an improved automatic coupling of the pivoted-jaw type which will be provided with novel mechanism, so that it can be uncoupled from the side of the car.

Having these objects in view, my invention consists of a car-coupling comprising certain novel features and combinations appearing more fully in the following description and appended claims and in the accompanying drawings, in which—

Figure 1 is a plan view, parts being broken away to disclose the cushion-springs; Fig. 2, a side elevation; Fig. 3, a central longitudinal section; Fig. 4, a plan view of the coupler itself as detached from its casing or housing and with its top removed, and Fig. 5 detail views of different styles of links.

A designates the casing or housing of my improved car-coupling, the sides, top, and bottom and rear end of this housing being formed in a single piece, but the housing is open at its front end.

A buffer-plate B is located near the rear of the housing, and buffer-springs 1 and 2 are interposed between this buffer-plate and the end of the housing. When the main or movable part of the coupling is within the housing, it abuts on this buffer-plate, and the latter cushions its movement backward.

The numerals 3 and 4 designate additional springs which have their ends sunk in pockets in the sides of the housing and are adapted

to cushion the lateral movement of the coupler proper.

C and D designate the upper and lower plates of the coupling-box proper, and these plates are securely held together by bolts 5. The plates are provided with elongated registering slots 6 and 7 near their rear ends. A bolt or pin 8 passes through these slots and the top and bottom of the housing.

E and F designate jaws which are provided with hooked heads 9 and 10 and are pivoted on respective bolts 11 and 12. The rear ends of the jaws extend back quite a distance, and the end of jaw F is provided with a staple 13.

G designates a ribbon spring which has one end looped through the staple, as at 14, and said spring is curved and has its other end 15 in contact with the rear end of jaw E. This spring exerts a tendency to spread the rear ends of the jaws so that their heads will be pushed toward each other.

H designates a vertically-disposed spindle which is provided at its upper end with a hand-wheel 16 and is journaled in the respective plates of the coupling proper at one side and near the front end thereof. On the other side there is located a U-shaped frame I, and J designates a grooved roller which is journaled on a spindle K, which passes through and is connected to this frame.

A short chain or cable L connects jaw F with spindle H, while another chain or cable M, passing across the top of the coupling proper, connects to said spindle and passes around the roller and is connected to jaw E. When it is desirable to spread the jaws, all that is necessary is to grasp the hand-wheel and rotate the spindle in the proper direction. I find it preferable to cut out or notch the lower plate of the coupling-box proper at a point between the jaws, as at 17.

In Fig. 5 I have shown several styles of links. These links are designated by numerals 18, 19, 20, and 21, respectively. The link 18 is provided with duplicate hook-heads 22 and 23, which are adapted for engagement with the hook-heads of the jaws of the coupler. This style of link is to be used when my improved couplers are on the cars being coupled. Link 19 is also provided with a hook-head 24; but the end of its shank is hollowed out, as at

25, and is also provided with a pin-opening 26. This link is used when it is desired to couple to the ordinary form of open link commonly used at the present time. The link 20 also has a hook-head 27 of the same construction as those heretofore described; but the shank of this link is curved upwardly, as at 28, and provided with a pin-opening 29, so that it can be coupled to the ordinary form of coupler by the usual style of coupling-pin. Link 21 is provided with a hook-head 30, and the shank of this link is provided with pin-openings 31, so that said shank can be inserted in the ordinary style of draw-head and the coupling-pin passed through the openings thereof.

The outer housing or casing A is fastened to the flooring of the car.

When the coupling-box is struck during the coupling operation, the impact is cushioned by the spring-pressed coupling-plate, and when said coupling-box swings laterally, as when the cars are going around a curve, this lateral movement is also cushioned by the springs located at the front of the casing or housing. When the hook-head of the link is inserted between the hook-heads of the jaws, the latter are forced apart only to spring together after the link has passed sufficiently far between them so that the latter is properly locked in position. When it is desirable to release the link, all that is necessary is to manipulate the hand-wheel, so that the spindle will be turned and the jaws separated.

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 pivoted jaws having hooked heads at one end, of a single spring adapted for simultaneously spreading the rear ends of the jaws to bring the hook-heads together, a rotatable spindle, means for turning the same, a bracket, a concave roller journaled in the bracket, a cable or equivalent connection between one of the jaws and the spindle, and a second cable also connected to the spindle and passing over the concave roller and connected to the remaining jaw.

2. In a car-coupler, the combination with a casing or housing, of an open or hollow coupling-box slidable longitudinally in said housing, buffer-springs interposed between the rear of the coupling-box and the back of the housing, coupling devices within the box, coil-springs which are located inside the housing or casing and bear directly on the opposite sides of the coupling-box and against the housing, whereby to cushion the lateral movement thereof, and means for limiting the longitudinal movement of the said box.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

SAMUEL McCAMMANT.

Witnesses:

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G. K. KRISTENSEN.