

(No Model.)

M. M. SHUR.  
CAR COUPLING.

No. 292,698.

Patented Jan. 29, 1884.

Fig. 1.

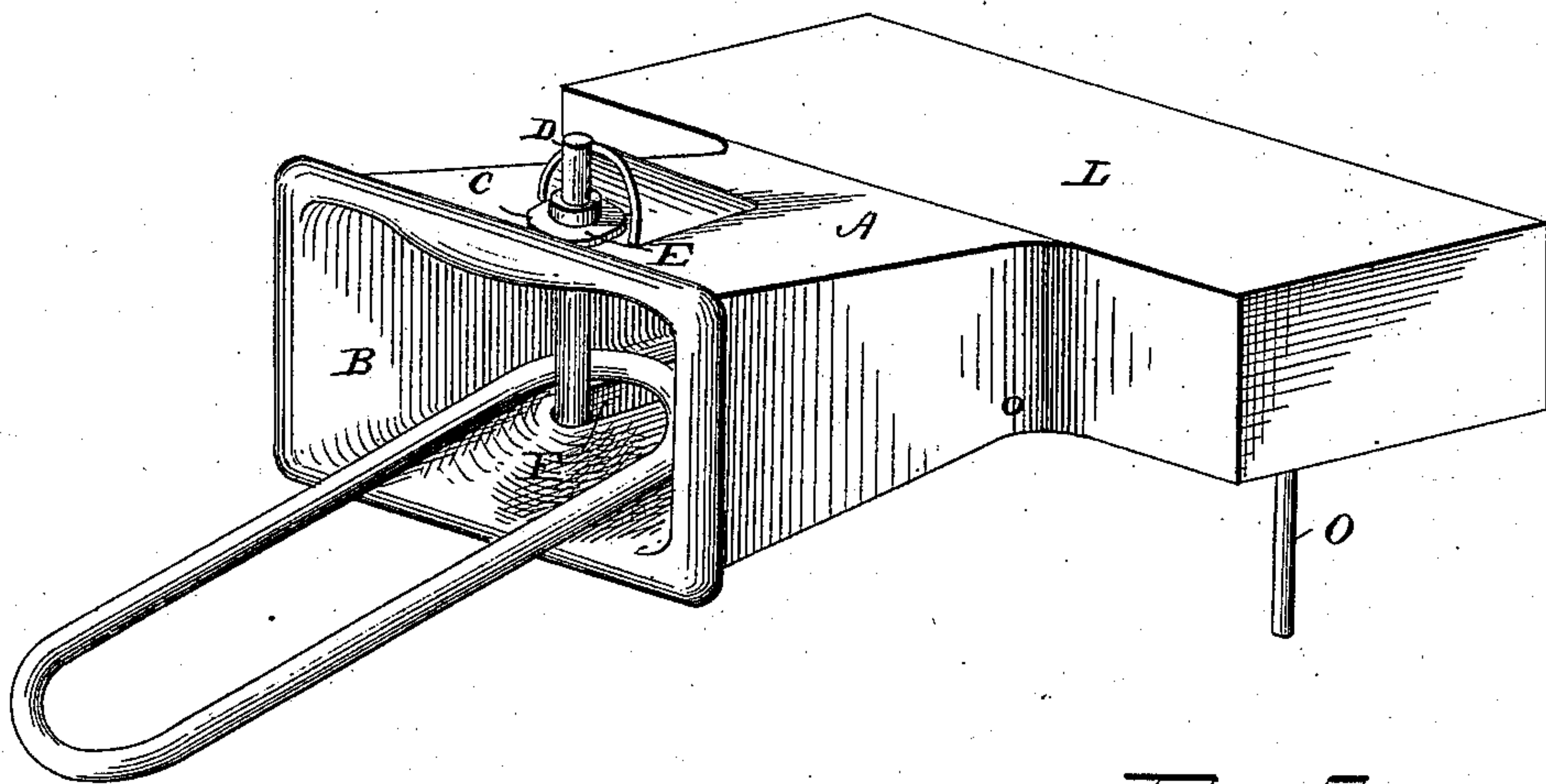


Fig. 2.

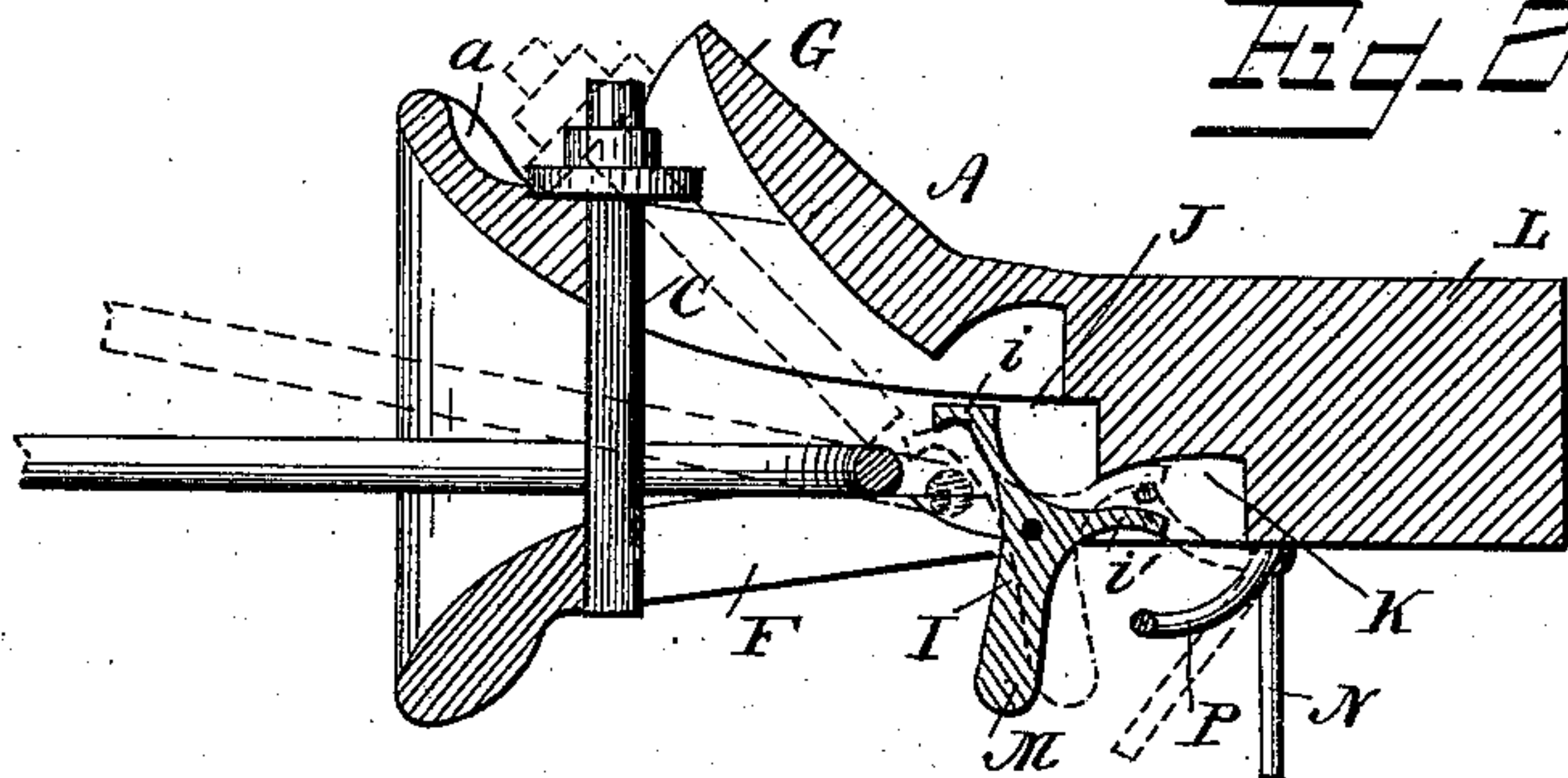


Fig. 3.

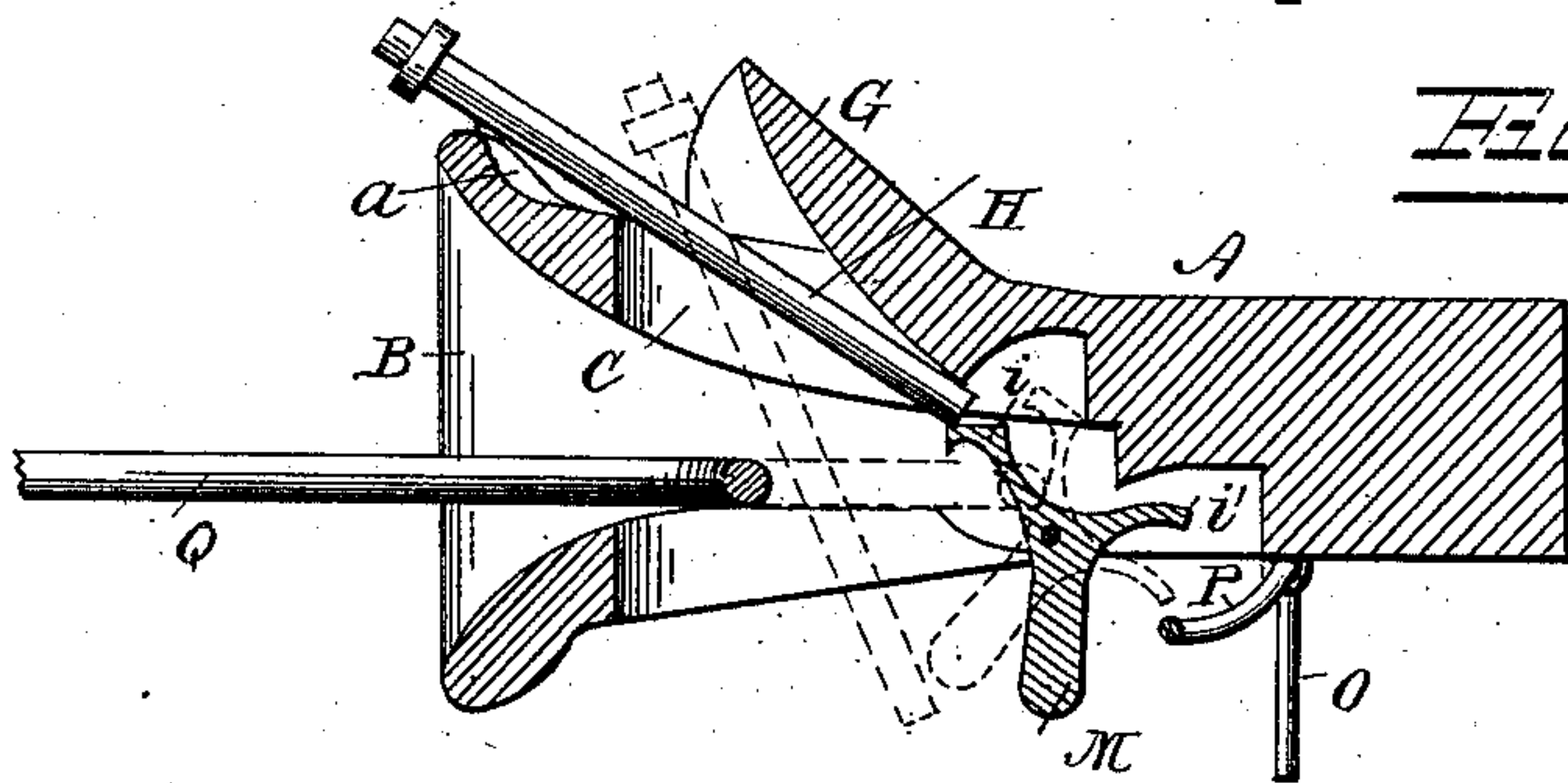


Fig. 5.

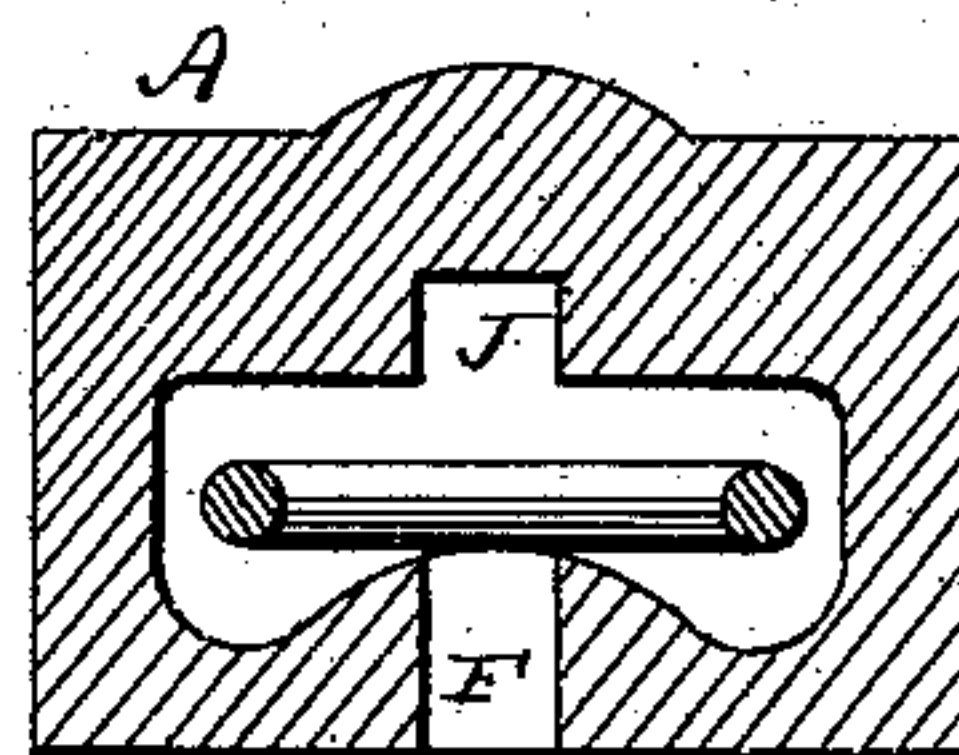
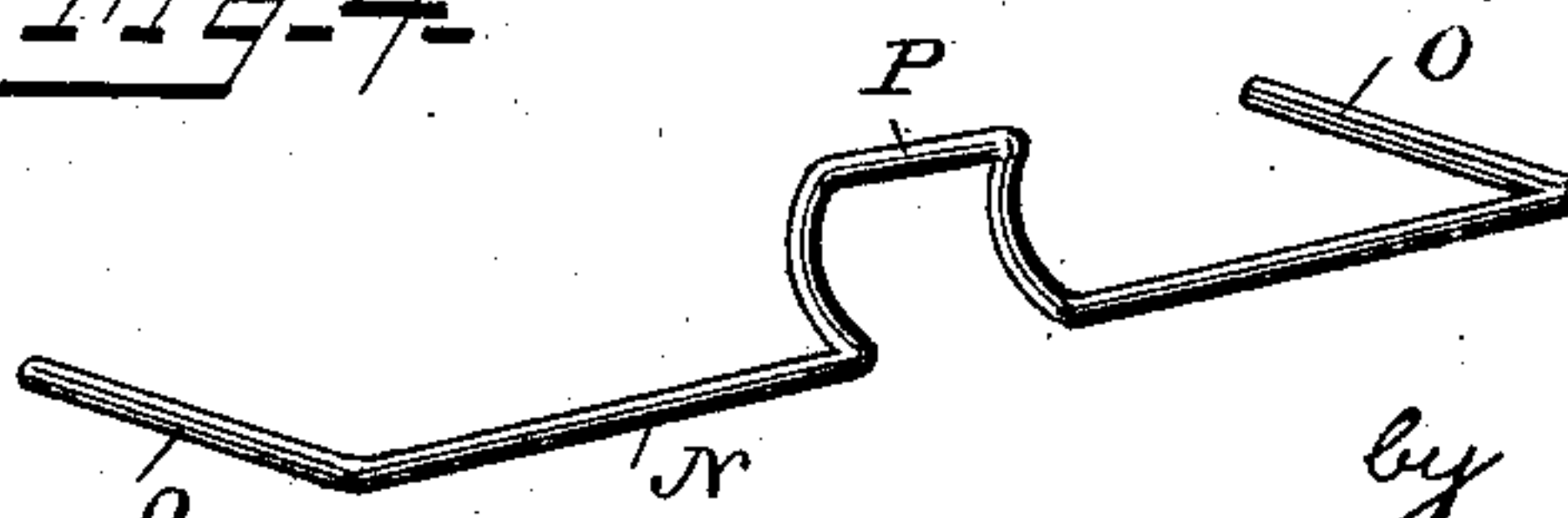


Fig. 4.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

MILTON M. SHUR, OF WASHINGTON, DISTRICT OF COLUMBIA.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 292,698, dated January 29, 1884.

Application filed December 5, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, MILTON M. SHUR, a citizen of the United States, residing at Washington, in the District of Columbia, have invented a new and useful Car-Coupling, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to car-couplings; and it has for its object to provide a safe and efficient automatic coupling in which there will be no springs to get out of order by constant use, and yet the operation will be positive and certain at all times.

It also has for its object to provide an improved device for raising the link in coupling with cars of different heights; and a still further object of the invention provides means for automatically coupling cars employing the ordinary pin and link.

With these objects in view the said invention consists in certain details of construction and combination of parts, as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my improved car-coupling. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a similar view, illustrating the operation when an ordinary pin is employed. Fig. 4 is a detail view of the rock-shaft. Fig. 5 is a transverse sectional view.

Like letters refer to corresponding parts in the several figures.

Referring to the drawings, A designates the draw-head of an ordinary car, having a mouth or recess, B, and an opening, C, in the top of the same.

D designates a coupling-pin, which is considerably shorter than the pin ordinarily used for this purpose, and is provided with a circular head, E, near its upper end, said pin passing through the opening C and mouth B, and working at its lower end in a longitudinal slot, F, in the bottom of the draw-head. A conical-shaped hood, G, is secured to the top of the draw-head, and projects over and above the opening C, and a recess, a, is cut in the upper face of the said draw-head, the pin D in operation being forced backward in an inclined chute or passage, H, which connects the opening C with the rear end of the mouth B.

I designates a lever pivoted in the draw-head

at the rear end of the mouth B, the forward arm, i, of said lever working in a depression, J, of the said draw-head, and the rear arm, i', working in a recess or cut-away portion, K, of the platform L of the car, an extension, M, of said lever projecting downward and acting as a counter-balance for the two arms i i'. A rock-shaft, N, is journaled to the under side of the platform L, and is provided with operating-handles O O, the middle portion of the rock-shaft being formed with a stirrup, P, which curves or extends in a forward direction.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the annexed drawings.

When my improved form of pin is employed, the coupling is automatically performed without the agency of the lever I, the coupling-link Q striking against the pin D and forcing it backward in the inclined passage H, the head E of said pin being raised, and as soon as the link has passed the pin the latter drops into the same. Thus it will be seen that I provide an automatic coupling in which no springs are employed, so that there will be no danger of the parts becoming broken or disarranged. The hood G prevents the pin from jumping out, the head E acting as a pivot for the said pin in its movements. To raise the coupling-link the rock-shaft N is operated to allow the stirrup P to bear against the rear arm, i', of the lever and cause the latter to work on its pivots, the forward arm, i, bearing or pressing downwardly on the rear end of link Q, and thus raising the front end of the same, the link working in the grooves formed in the interior of the draw-head on each side. By this means the link may be raised to the height desired when coupling with a car in which the draw-head is arranged higher than ordinarily.

An ordinary coupling-pin may be used with my car-coupling, and in Fig. 3 I have illustrated its use and mode of operation. It will be seen that the front arm, i, of the lever I is lowered by means of the rock-shaft G, as before described, and the pin rests upon the front end of arm i, so that when the link is passed into the mouth B of the draw-head it strikes against the lever and forces the arm i upward, thereby permitting the pin to drop in its usual place in the link.

The advantages of my invention are numer-



ous; but they need not be particularly recited here.

The car-coupling is simple, durable, inexpensive, and efficient. Its operation is automatic and positive, and since there are no springs used there will be less danger of the parts working out of order.

It will be seen that the peculiar shape of the interior of the draw-head, with grooves on each side for the link to rest in, allows the link to work as if it were pivoted at its rear end, the lever bearing against the said rear end of the link and directing the height to which it is desired to raise the link.

Having described my invention, I claim as my own—

1. In a car-coupling, the combination, with the link, of a lever, I, pivoted in the draw-head and formed with two arms, *i i'*, and a rock-shaft, also journaled in the draw-head in the rear of the lever and formed with a stirrup, P, for operating upon one of the arms, as set forth.

2. In a car-coupling, the combination of the

lever pivoted in the draw-head, and provided with means for operating the same, with a pin adapted to rest at its lower end upon said lever, as and for the purposes set forth. 25

3. In a car-coupling, the combination of a lever pivoted in the draw-head, and provided with means for operating the same, with a pin resting upon said lever, and an inclined passage, as set forth. 30

4. In a car-coupling, the combination, with the draw-head provided with an opening, C, and a pin having a circular head near the top and fitting in said opening, of an inclined passage in rear of the opening, and a conical-shaped hood, G, extending over the opening partly around the pin, as set forth. 35

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses. 40

M. M. SHUR.

Witnesses:

C. A. NEALE,  
G. B. HARRIS.