

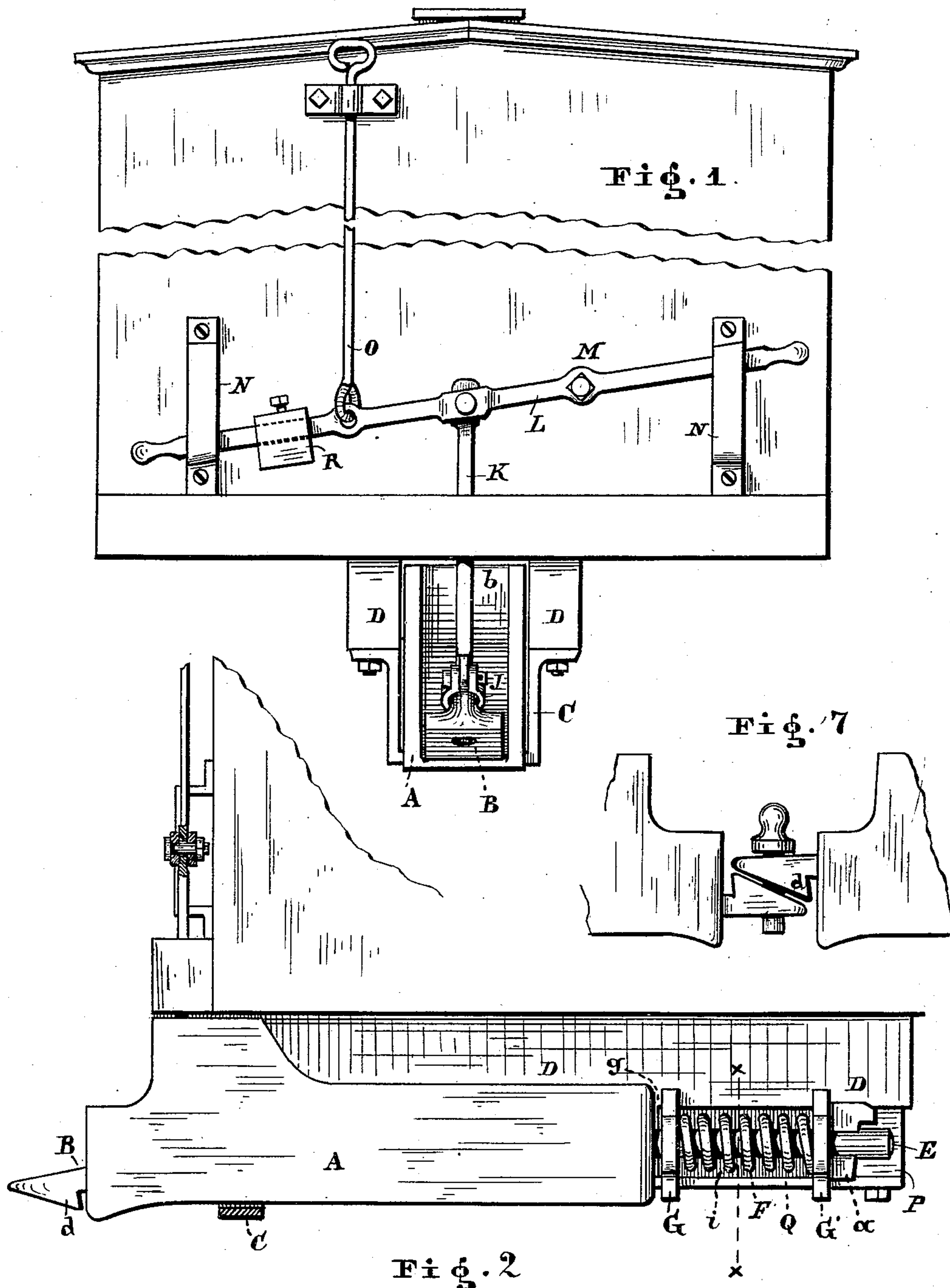
(No Model.)

2 Sheets—Sheet 1.

J. L. ORDNER.
CAR COUPLING.

No. 407,605.

Patented July 23, 1889.



WITNESSES

B. M. Burridge

F. R. Collins

INVENTOR

J. L. Ordner

W. H. Burridge Atty.

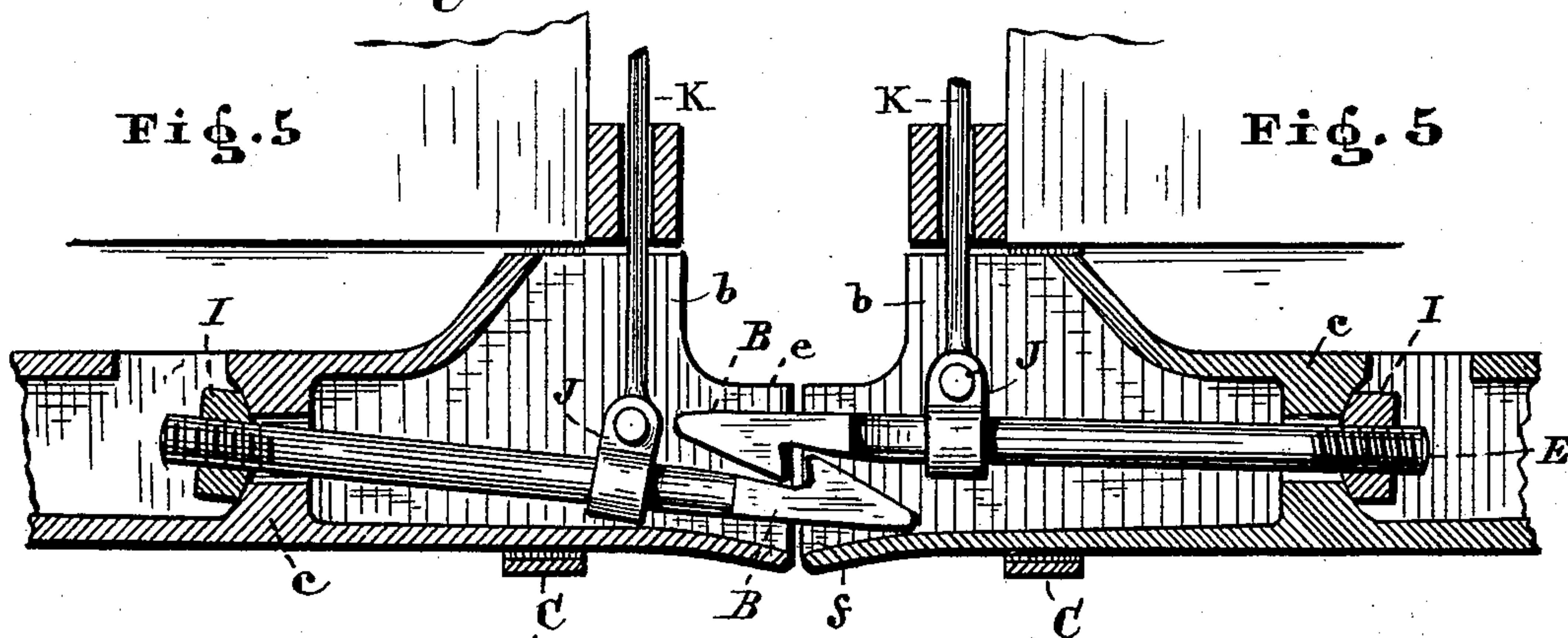
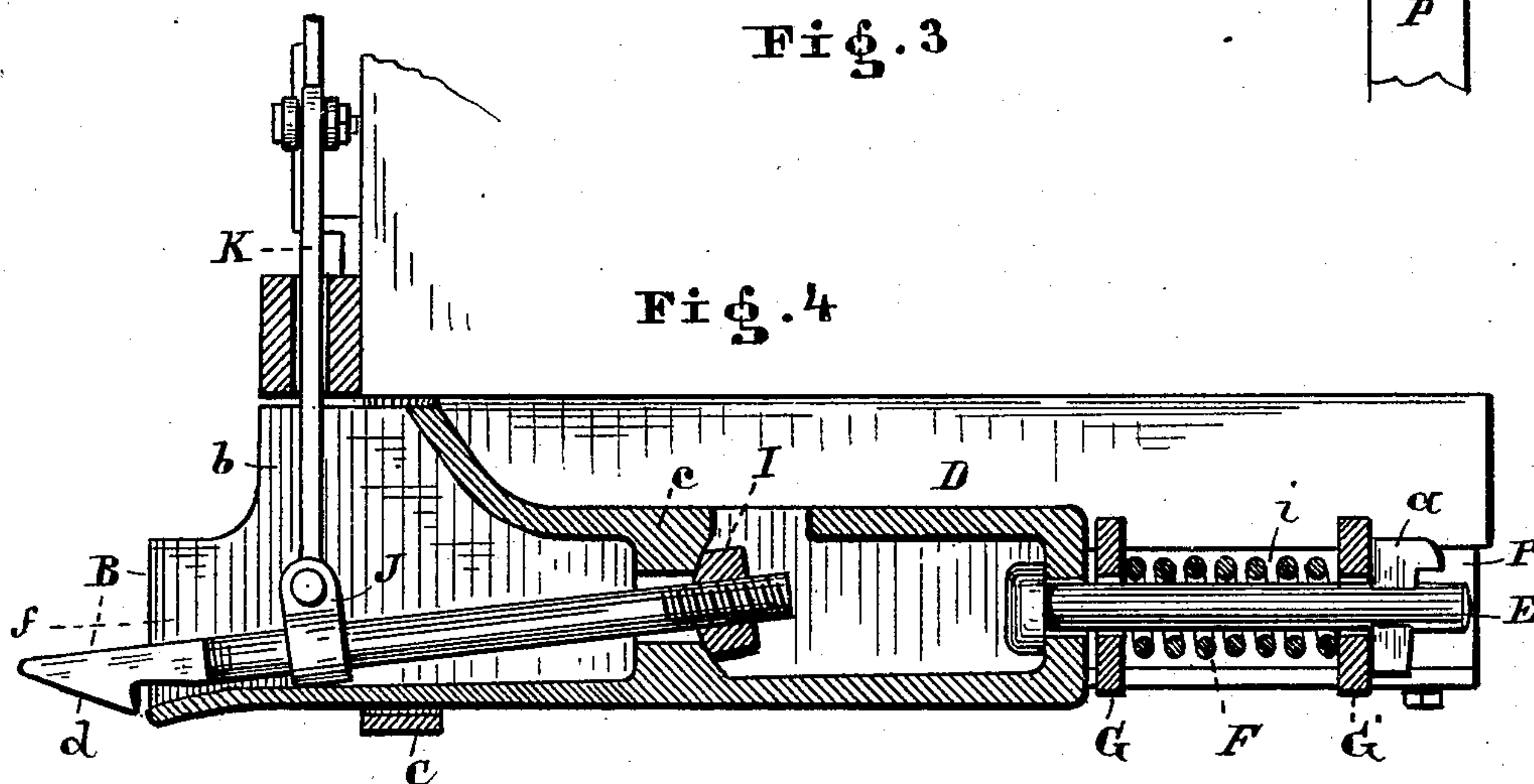
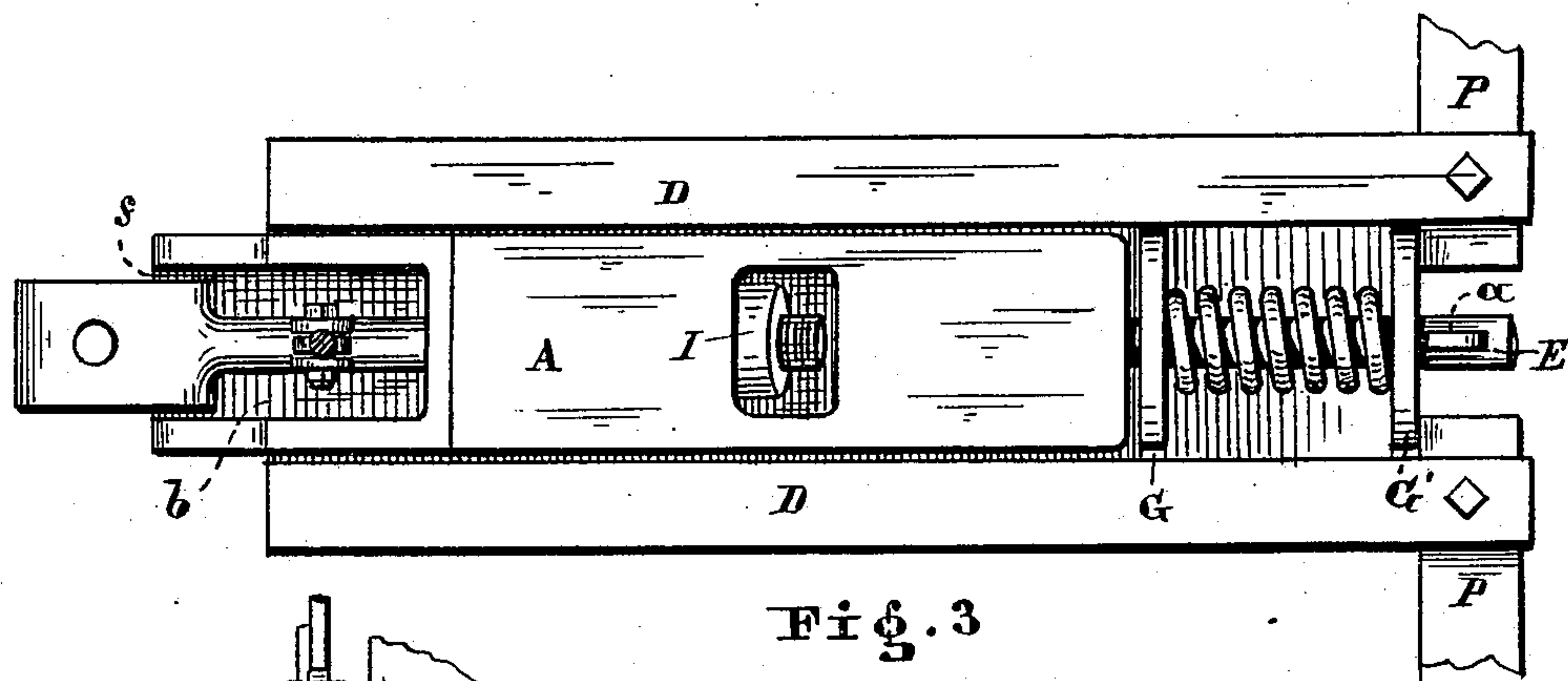
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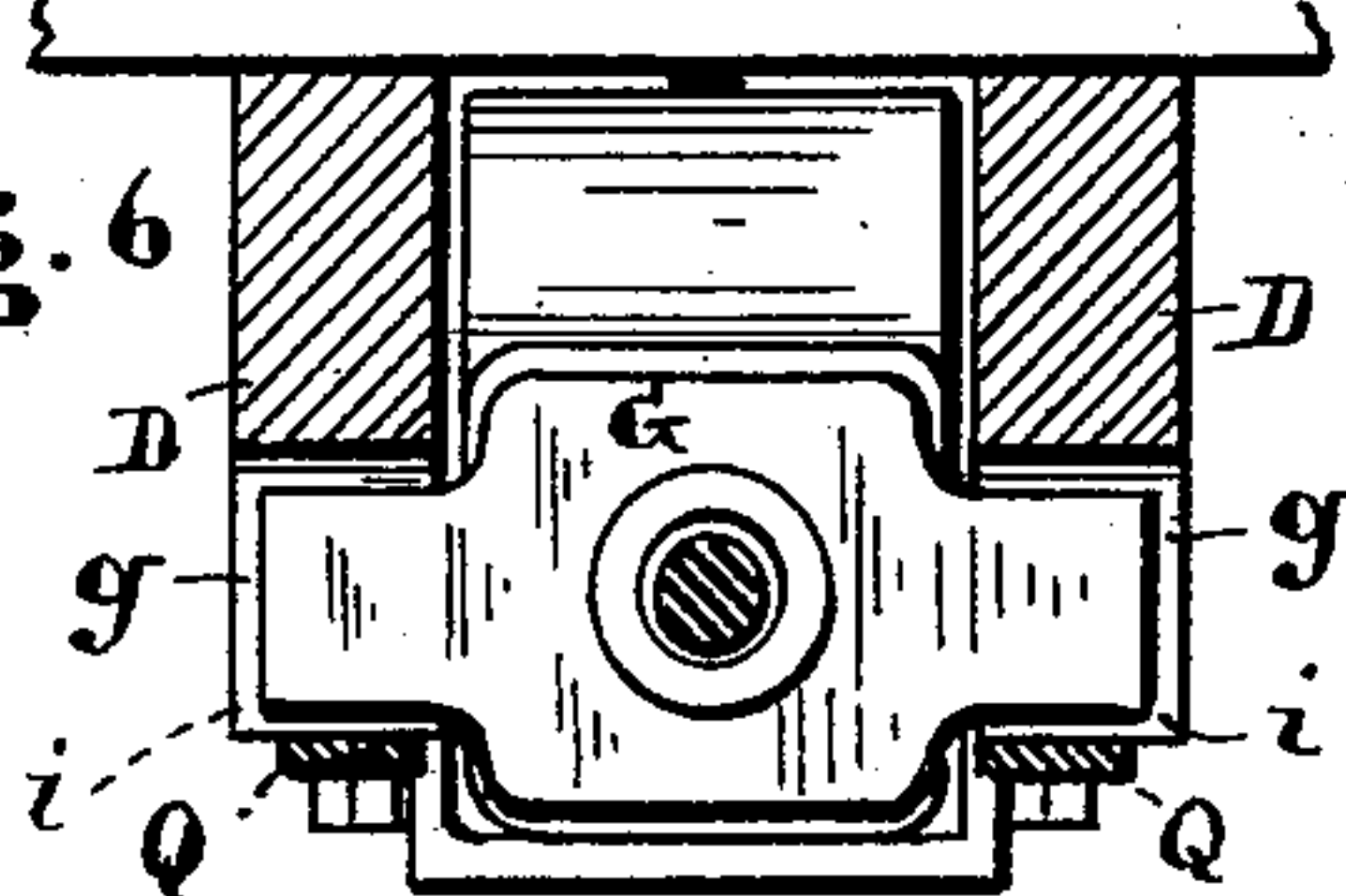


WITNESSES

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Fig. 6



INVENTOR

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UNITED STATES PATENT OFFICE.

JOHN L. ORDNER, OF THOMPSON, OHIO.

CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 407,605, dated July 23, 1889.

Application filed April 15, 1889. Serial No. 307,376. (No model.)

To all whom it may concern:

Be it known that I, JOHN L. ORDNER, a resident of Thompson, in the county of Geauga and State of Ohio, a citizen of the United States, have invented a certain new and Improved Car-Coupling; and I do hereby declare the following to be a full, clear, and complete description thereof.

My invention relates to automatic car-couplings, the improvement consisting in the particular construction thereof, the object being to so provide and arrange a car-coupling as to render its application practicable under the various conditions to which couplings may be subjected, as hereinafter set forth and described.

Figure 1 illustrates a face view of said automatic car-coupler as attached to a railroad-car. Fig. 2, Plate 1, is a side elevation of Fig. 1. Fig. 3 is a plan view of the coupler only. Fig. 4 is a central vertical section through Fig. 2. Fig. 5 illustrates the couplers in engagement with each other. Fig. 6, Plate 2, is a transverse section in line $x x$ of Fig. 2; and Fig. 7, Plate 1, illustrates a manner in which the couplings may or can be connected.

Like letters of reference refer to like parts in the drawings and specifications.

The said coupler is shown as attached to a railroad-car, A representing the draw-head thereof, and B the draw-bar, Figs. 1 and 2. In front the draw-head A is attached to the floor-frame of the car in the usual manner—that is, the front end of the coupling is supported by the follower C, which connects with the timbers D D, as seen in Fig. 1. The rear end is connected and guided by means of the bolt E and cushioned by the action of the spring F. The head of said bolt E is inside the draw-head A. Between the draw-head and the key a of said bolt are the spring F and plates G G', which plates slide between the timbers D D and hold up the rear end of the draw-head A in position, as shown. The coupling-bar B is extended through the cavity b of the draw-head A, as seen in Figs. 3 and 4, and is loosely retained therein by means of the nut I, which bears against the partition c within said cavity. The circular shape of the faces of said nut and partition allows of a free and easy adjustment of the coupling-bar in position, and by the threaded connection of the

bar and nut said bar can be so set as to either have the hook d at the front end facing up or down, Fig. 7. As seen in Figs. 5 and 7, the hooks d must face each other in order to secure their engagement; but either one may be up or down.

In order to disengage the hooks without going between the cars, each bar is provided with a sleeve J, each of which is jointed to a rod K and connected with the lever L, which is secured to the ends of the car at M, forming the fulcrum of the lever and extending transversely therefrom through the brackets N N, and aid in supporting the lever in position for operation, Fig. 1.

About midway between the long end of the said lever and the fulcrum is linked a rod O, extending to the top of said car, by means of which the cars may be uncoupled from the roofs thereof. Thus cars can be uncoupled from the top, as well as from either side.

In coupling cars the only attention to be given is that the hooks of the coupling-bars are arranged to lie facing each other, as seen in Fig. 7. Should one of the bars need turning, it is done by lifting the bar above the shoulder c to give room for the rectangular end of said bar to turn in, Figs. 1 and 3. When in proper position, or coupled, the draw-bars B cannot turn, owing to the angular shape of the head thereof, which fits closely between the extension f of the draw-heads A. In coupling cars the force of the shock under which the draw-heads meet is modified by the compression of the spring F, while the influence of the springs relieves a train from the strain and sudden jars to which cars are subjected in starting and while in motion. When cars are coupled, the resistance to the said spring is exerted by the plate G' in bearing against the timbers P P, Fig. 1. The plate G aids in supporting the connections of the train by bearing against the shoulders g of the timbers D D, as seen in Figs. 2 and 6. The timbers D D and P P, together with the plates Q Q, form elongated spaces i , in which said plates G G' are allowed to move, while the latter at the same time are supported by the plates Q Q.

On the lever I' is hung an adjustable weight R, for the purpose of inducing such weight upon the couplings as to insure their connec-

tion and to prevent their separation by the jars and jolts of the train, the said weight R being secured in such position by a set-screw or otherwise.

5 In coupling with cars having the ordinary buffer-head the connection can be made by passing the coupling-pin through the hole in the said buffer-head and head B, by which means the improved coupling may be connected with the ordinary form of coupling in
10 which the pin is used, and the coupling of the cars may be made by passing a pin through the heads B, as seen in Fig. 7.

What I claim as my invention, and desire
15 to secure by Letters Patent, is—

1. In an automatic car-coupling with reversible draw-bars, the combination of the head A, bar B, bolt E, spring F, and plates G G', the said head having an extension *f*,
20 adapted to guide and to allow of turning of said bar, and the bolt E, extending through the rear of said head, carrying said spring and plates in the manner and by the means substantially as shown.

2. In an automatic car-coupling, the combination of the draw-head A, the draw-bar B, the sleeve J, attached to said bar, and the rods and lever for operating said bar, constructed and arranged in the manner as described, and for the purpose specified. 25 30

3. An automatic car-coupling consisting of the draw-head A, draw-bar B, sleeve J, rod K, and lever L, in combination with the fulcrum M, rod O, the said draw-bar having a hook *d* at its front end in projecting relation with the draw-head, and a threaded nut I on the rear
35 end of said bar bearing upon a partition within said draw-head, constructed and arranged substantially as set forth, and for the purpose described. 40

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

JOHN L. ORDNER.

Witnesses:

W. H. BURRIDGE,
B. F. EIBLER.