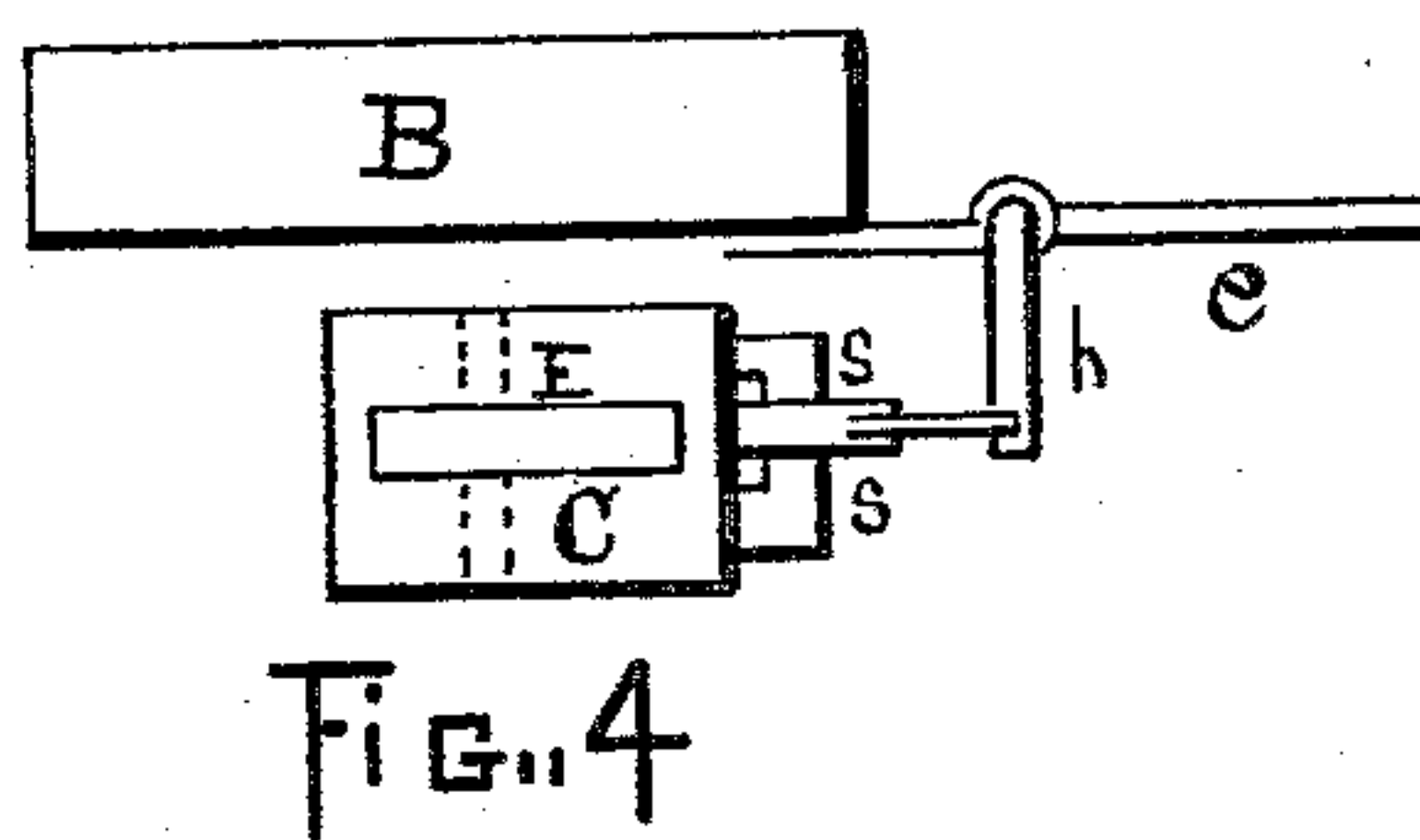
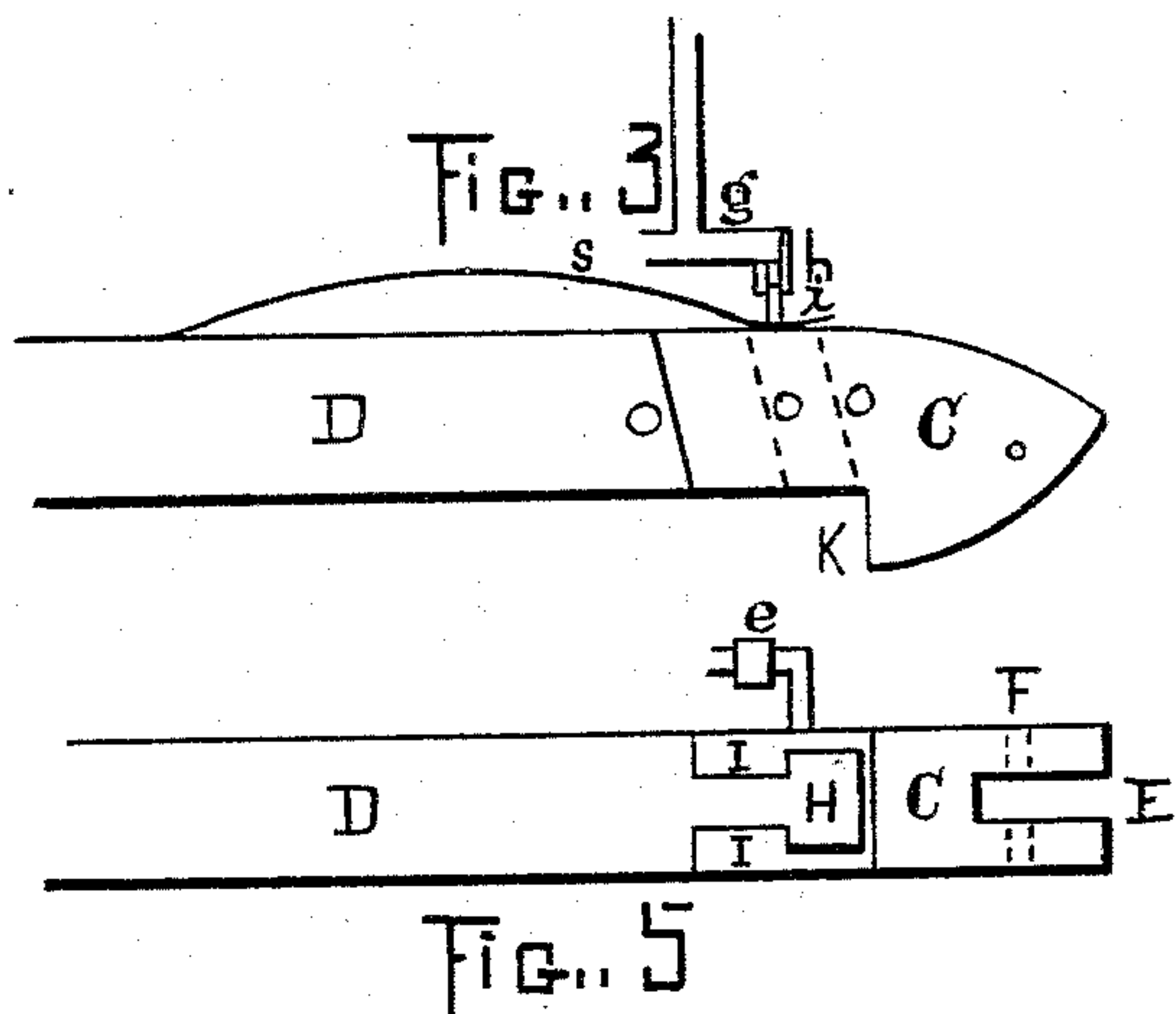
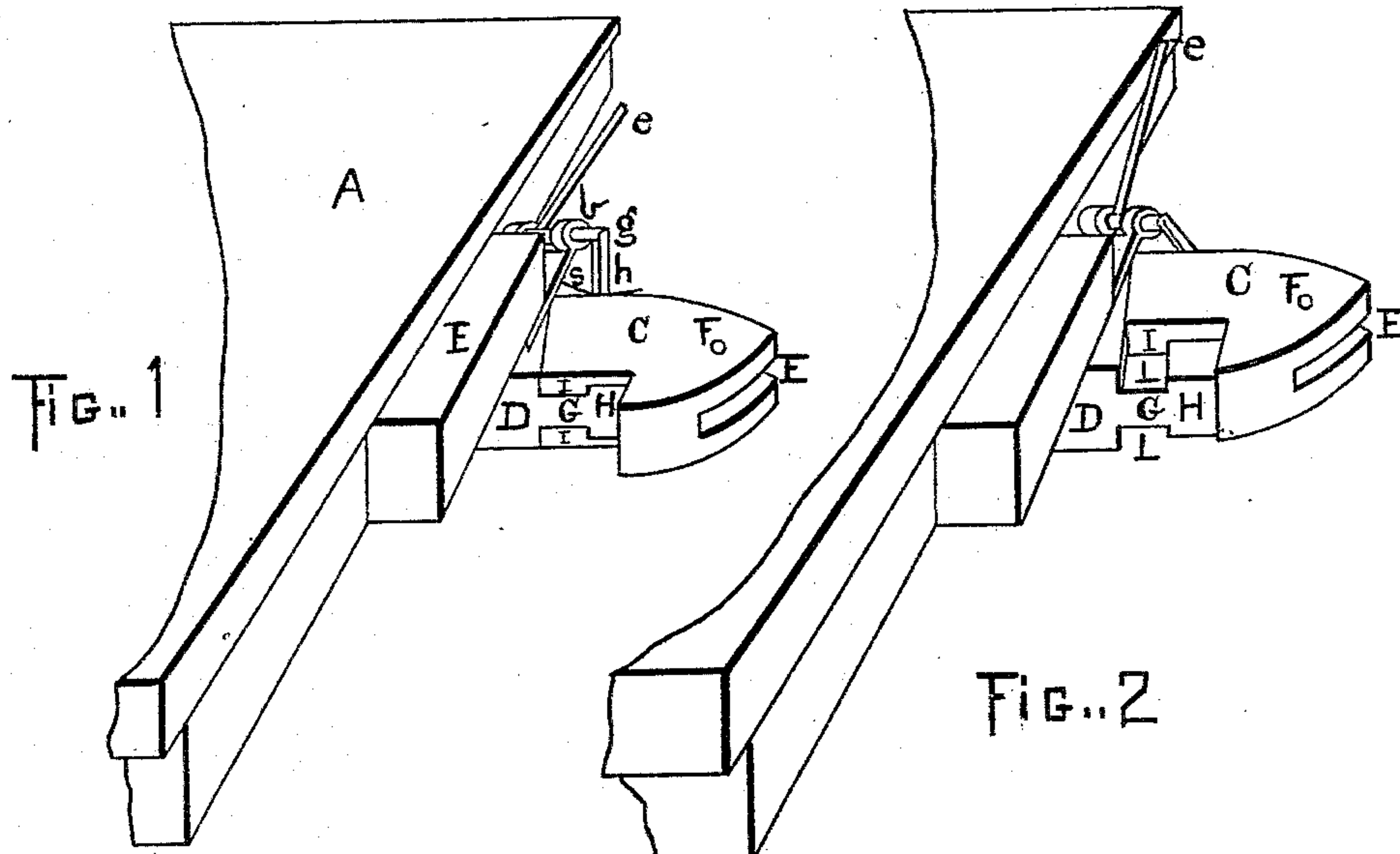


(No Model.)

R. D. GILES.  
CAR COUPLING.

No. 339,543.

Patented Apr. 6, 1886.



WITNESSES  
Charles B. Lothrop.  
Sumner Collins.

INVENTOR  
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# UNITED STATES PATENT OFFICE.

ROBERT D. GILES, OF DETROIT, MICHIGAN.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 339,543, dated April 6, 1886.

Application filed November 2, 1885. Serial No. 181,662. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT D. GILES, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Car-Couplings, of which the following is a specification.

My invention is an improvement in railway-car couplings, and is hereinafter fully pointed out in the claims.

Figures 1 and 2 are perspectives of part of one end of a railway-car with my coupling attached. Fig. 3 is a plan view, and Fig. 5 a side elevation, of the coupling. Fig. 4 is an end view of the dead-wood and coupling.

A represents part of the end of a railway-car and B represents the dead-wood.

D represents an iron bar, which is supported and fastened to the car precisely as is the ordinary link-and-pin draw-bar, which is too well understood to require explanation. The end of bar D projects forward of the dead-wood B, and forward of the dead-wood a mortise, L, Fig. 2, is formed in the upper and under surface of bar D, and the end of bar D is formed with a head, H, of the same horizontal thickness as bar D, but of less vertical thickness, as clearly shown in the drawings. The part of bar D which lies between the mortises and connects head H with the bar is marked G.

C represents a hook-coupling, having the usual beveled face, K, and having at its point the usual slot, E, and pin-hole F, to permit the use therewith of the ordinary link-and-pin coupling. The coupling-hook C is slotted horizontally from side to side from its rear end to about the heel of the face K, as shown by dotted lines in Fig. 3, so that it will embrace the end of bar D, and has formed upon the inner surfaces of the slot two tenons, I I, which fit into the mortises L L, so that the shoulder of the tenons bears against the shoulders formed on bar D by the mortises L L and head H, and thus prevent the coupling-hook C from being removed from bar D by force applied in the direction of the length of said bar D, while at the same time the coupling-hook C can be slid on bar D horizontally in a direction at right angles to the length of said bar. I make the faces of the mortises L L and tenons I I on an incline leading forward from the plain side of the coupling-hook to the hooked side thereof, so that longitudinal strain applied to the hook

has a tendency to cause said hook to slide on the fixed bar D, and thus retain its engagement with another hook coupled thereto. This arrangement is shown by the lines O O, Fig. 3.

S represents a spring, one end of which is secured to bar D or to some portion of the car, and its free end rests and presses against the coupling-hook C, as shown in Fig. 3.

g represents a rock-shaft hung in bearings f, secured to the dead-wood or other part of the end of the car, and having attached thereto a lever, e, which extends out toward the side of the car, and has also attached thereto an arm, h, which is connected by a shackle or chain, i, to the coupling-hook C. It will be readily understood that when the lever e is raised the arm h will swing and slide the coupling-hook C on bar D against the resistance of the spring S, as shown in Fig. 2, and that when lever e is released the spring S will restore the coupling-hook C to its original position.

The bar D and hook C may be constructed of any suitable metal or combination of metals—as cast and wrought iron—and the tenons and mortises which hold the hook to the bar may be straight, as shown in the drawings, or dovetailed, if preferred.

The operation of my invention is so simple that it will be readily understood by all railway mechanics without further description, and it will be noticed that I avoid the necessity of swinging the whole draw-bar laterally, as is the case with many hook-couplings, and simply slide the hook laterally in the act of coupling or uncoupling two cars, while the rest of the draw-bar is stationary.

It is evident that the form of lever commonly used with the so-called "Miller Coupling" may be used with my invention instead of the rock-shaft and lever shown by me.

I am aware that car-couplings have heretofore been composed of draw-heads having laterally-sliding and interlocking spring-jaws, and also with interlocking spring-jaws having a vertical movement. It will be understood, however, that I make no claim to interlocking spring-jaws, broadly, whether moving laterally or vertically.

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

1. The combination of the fixed draw-bar D,

having a head, H, and provided with mortises L L, the coupling-hook C, having tenons I I, sliding on the draw-bar at right angles with the line of draft, the spring S, and the rock-  
5 shaft g, having a lever at one end and connected with the coupling-hook at its other end, substantially as described.

2. In combination with a fixed draw-bar having lateral inclined mortises cut in its up-

per and lower surfaces, a coupling-hook having thereon inclined tenons adapted to fit in said mortises, substantially as shown and described.

ROBERT D. GILES.

Witnesses:

GEO. W. MARSHALL,  
D. I. DAVISON.