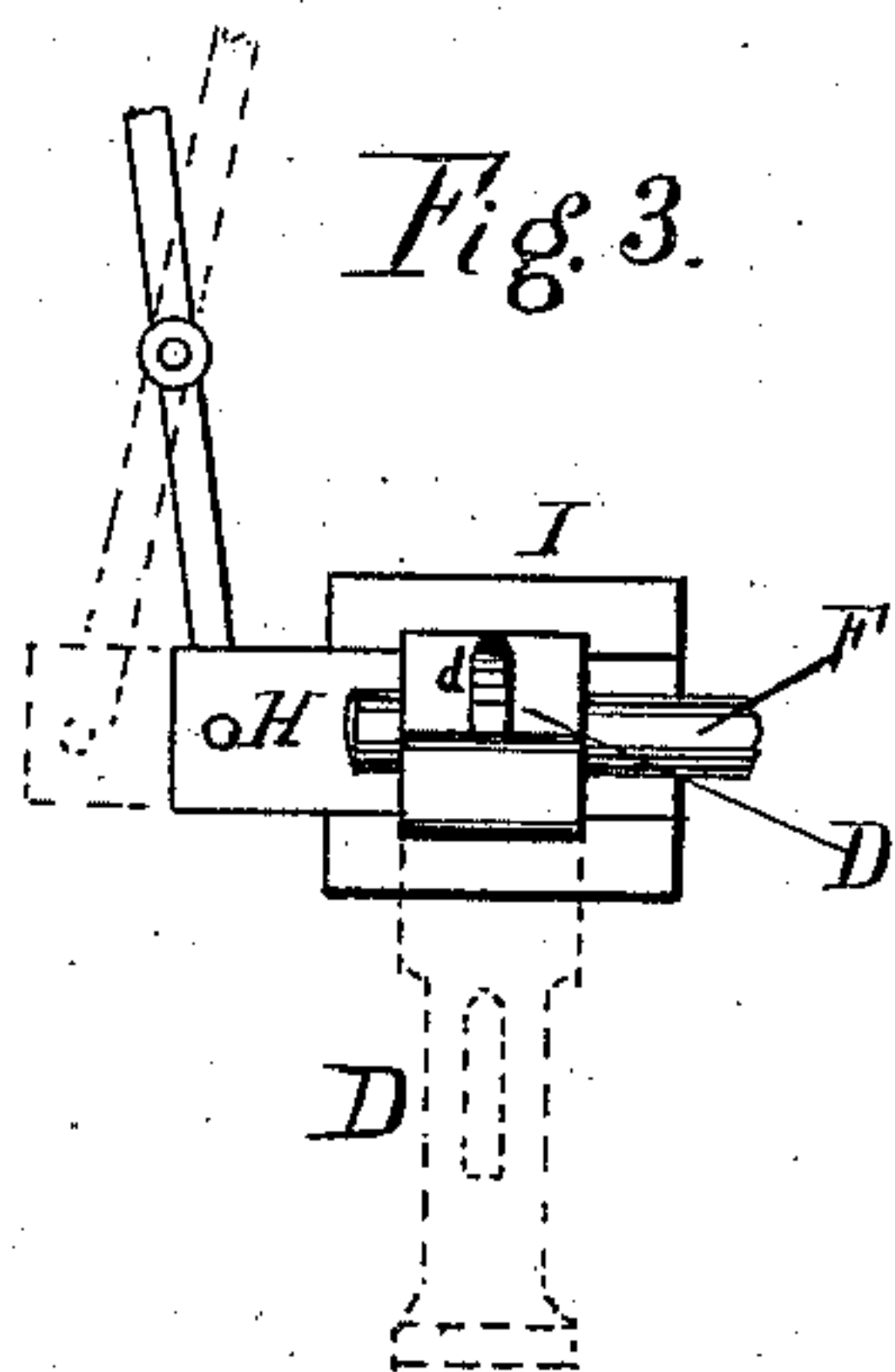
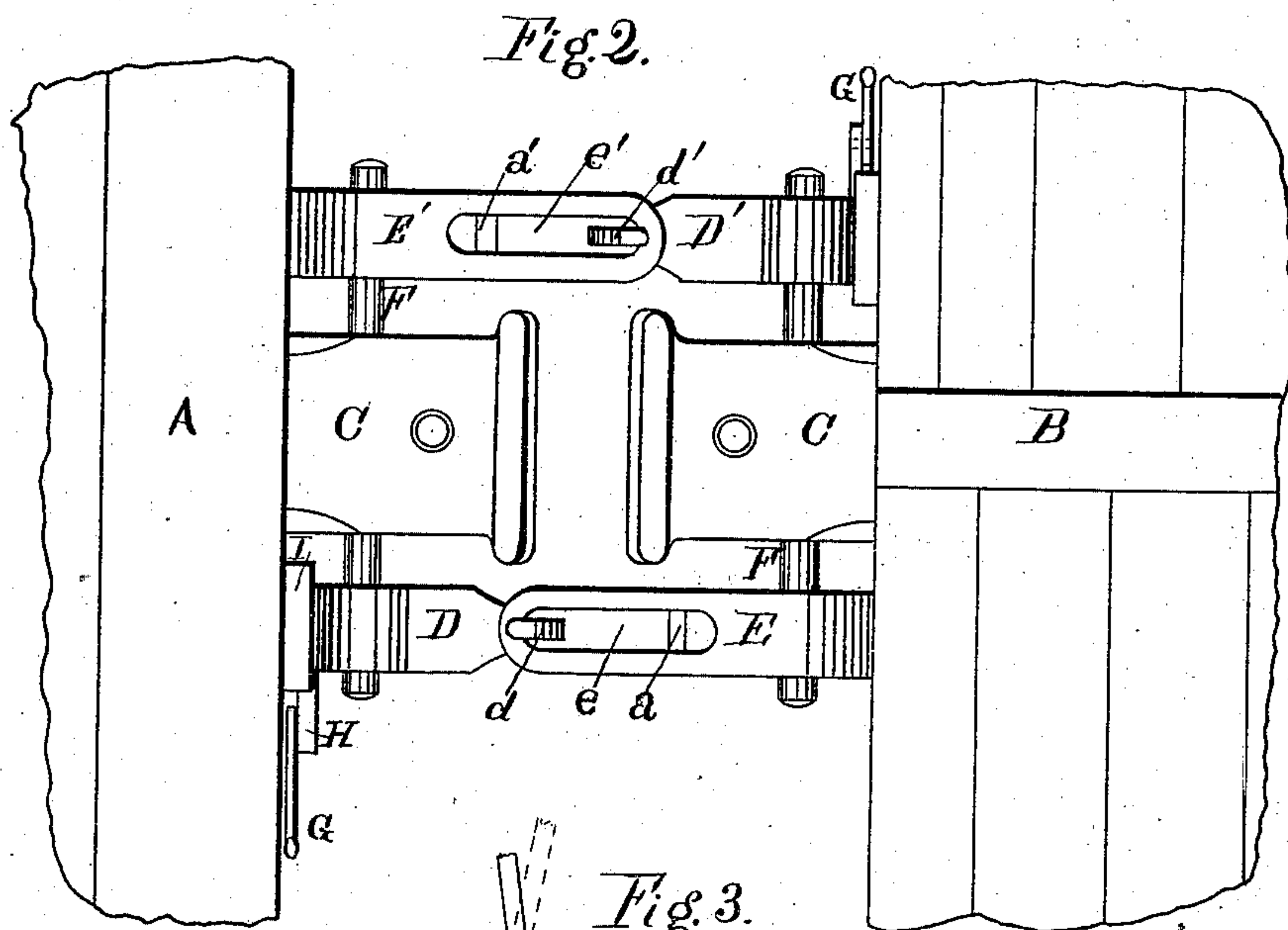
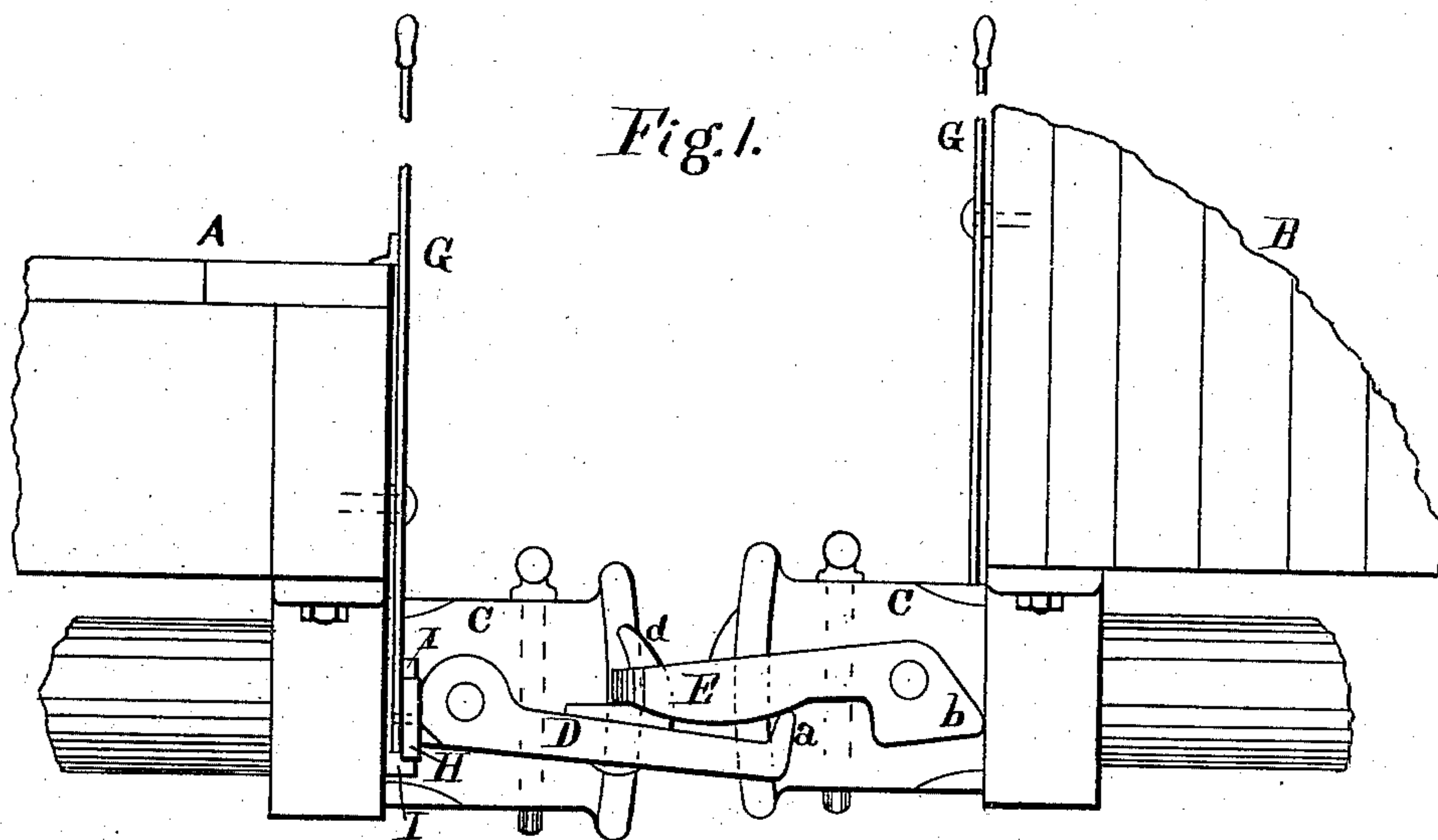


(No Model.)

R. DE LAN.  
Car Coupling.

**No. 238,866.**

Patented March 15, 1881.



Witnesses,  
Edw. S. Cobb,  
Wm. H. Emmons.

Inventor,  
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by J. H. Adams  
Att'y.

# UNITED STATES PATENT OFFICE.

RICHIE DE LAN, OF BOSTON, MASSACHUSETTS.

## CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 238,866, dated March 15, 1881.

Application filed May 10, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, RICHIE DE LAN, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful  
5 Improvement in Car-Couplings, of which the following is a specification.

The object of my invention is to produce a car-coupling which shall be simple and effective in operation, automatic in action, and which  
10 may be readily applied to cars already in use without any essential change in the construction of the car.

The invention consists in the employment of two bars hinged on each side of the ordinary  
15 draw-bar of a railroad-car, one of the said bars being provided with a hook or curved projection on its upper side, and the other bar having the form of a link, which, as the two cars to be coupled come together, is caused to pass  
20 over the hook on the bar of the opposite car, and thus to become automatically coupled. In uncoupling, the hooked bar is caused to fall and release the link-bar by means of a lever under control of the brakeman.

25 Referring to the drawings, Figure 1 represents a side elevation of my improved coupling. Fig. 2 is a plan or top view of the same, and Fig. 3 is a detail view of the sliding bar for operating the connecting-bar.

30 My improvement is equally applicable to a passenger-car and to the ordinary freight or box car.

A represents the platform of a passenger-car, and B is a freight-car.

35 C C are the ordinary draw-heads, usually connected together by a link and bolts or pins.

D D' represent bars, each having on its upper side a hook or curved projection, *d d'*. These bars are hinged to a bar or rod, F F,  
40 passing transversely through the draw-heads C C.

E E' are slotted bars, also hinged to the bars F F that pass through the draw-heads. The under side of the slotted bars E E' is curved,  
45 as shown in Fig. 1, so that as the couplings approach each other on opposite cars the slotted bars will ride up over the angular projections *a a'* on the hooked bars D D' and fall over the hooks *d d'* of said bars. The slotted  
50 bars E E' are held in proper position for meet-

ing the hooked bars D, and prevented from falling too low by means of the angular end *b* at the rear lower portion of the bars E E' bearing against a plate on the corresponding portion of the car-frame.

The hooked bars D D' are held in position  
55 to receive the slotted bars E E' by means of a bar, H, which is fitted in guides I I, so as to slide freely therein, and is pivoted to the lower end of a hand-lever, G, fulcrumed to the front  
60 of the platform and operated in the usual manner. When the cars are to be uncoupled the sliding bar H is withdrawn by means of lever G, which causes the hooked bar D to fall and thus release itself from the slotted bar E. The  
65 rear end of the hooked bar D is so constructed that upon again sliding the bar H back it will elevate the hooked bar D to the position to again receive the slotted bar E.

The couplings D D' E E' may be otherwise  
70 attached to the cars than to the bars F F, if found desirable.

It will be observed that in each car the hooked bar D will be arranged at one side of the draw-head C and the slotted bar E on the other side,  
75 so that at whichever end the cars may meet the hooked bars will always be opposite the slotted bars.

As will be seen, my improved coupling is very simple in construction, and can be at-  
80 tached to cars already built and in use at comparatively small cost and without necessitating any change in the construction of the car.

The tendency of the cars to uncouple when the drawing strain is not exerted, as when the  
85 cars approach each other, is prevented by the projecting end of the hooked bar D coming in contact with the inner portion of the lower part of bar E, which serves to hold the latter in place and prevent it from rising off the bar D.  
90

When the cars are at rest they can be readily uncoupled by hand without the necessity of using the lever for that purpose.

It is old to construct a draw-head with two  
95 chambers separated by a wall, one of such chambers containing a hooked bar and the other a link, said bar and link being pivoted upon a bolt passed through the draw-head; but this construction involves the application to the cars  
100 already in use of an entirely new and specially



constructed draw-head, while my invention is designed to be applied to those draw-heads already in use without alteration.

It is also old to pivot hooks and links in blocks and interpose bumpers between them, and to operate such hooks through a chain-and-lever connection with a rock-shaft.

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

10 1. The hinged bar D, provided with the hook *d* and projection *a*, in combination with the hinged slotted bar E, curved on the under side, and having the rear projecting end, *b*, substantially as and for the purpose specified.

15 2. In a car-coupling, the draw-heads C and bars F, extended therethrough and supported thereby, in combination with the hooked bars

D and D' and slotted bars E and E', arranged upon said bars F externally of the draw-head, and constructed and arranged as shown, where- 20 by said bars may be applied to draw-heads already in use without alteration, substantially as specified.

3. The sliding bar H and means to operate the same, in combination with the hooked bar 25 D or D', substantially as and for the purpose described.

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

RICHIE DE LAN.

Witnesses:

JOS. H. ADAMS,  
EDW. S. COBB.