

C. W. BENSON.

Car Coupling.

No. 99,818.

Patented Feb. 15, 1870.

Fig. 1

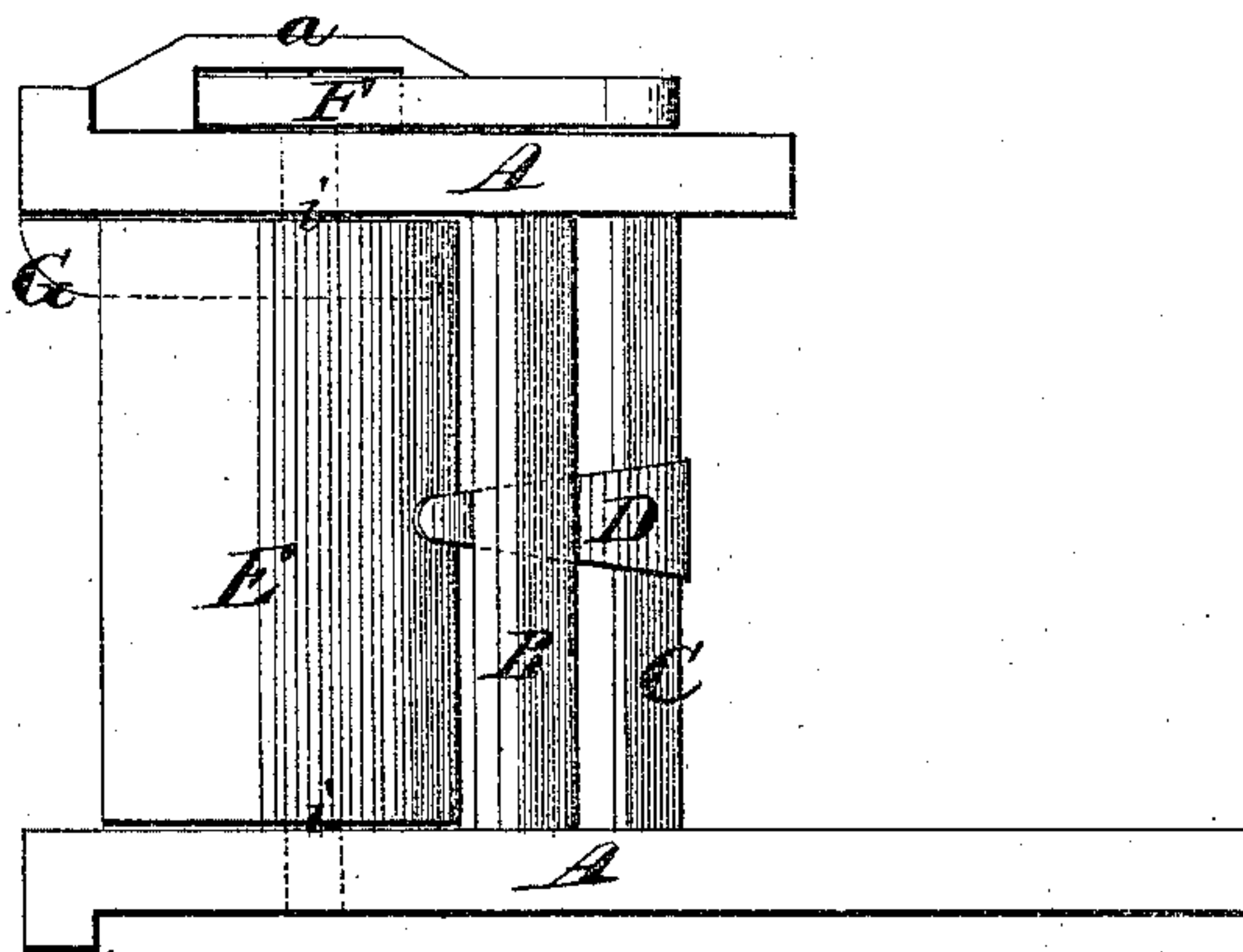


Fig. 2

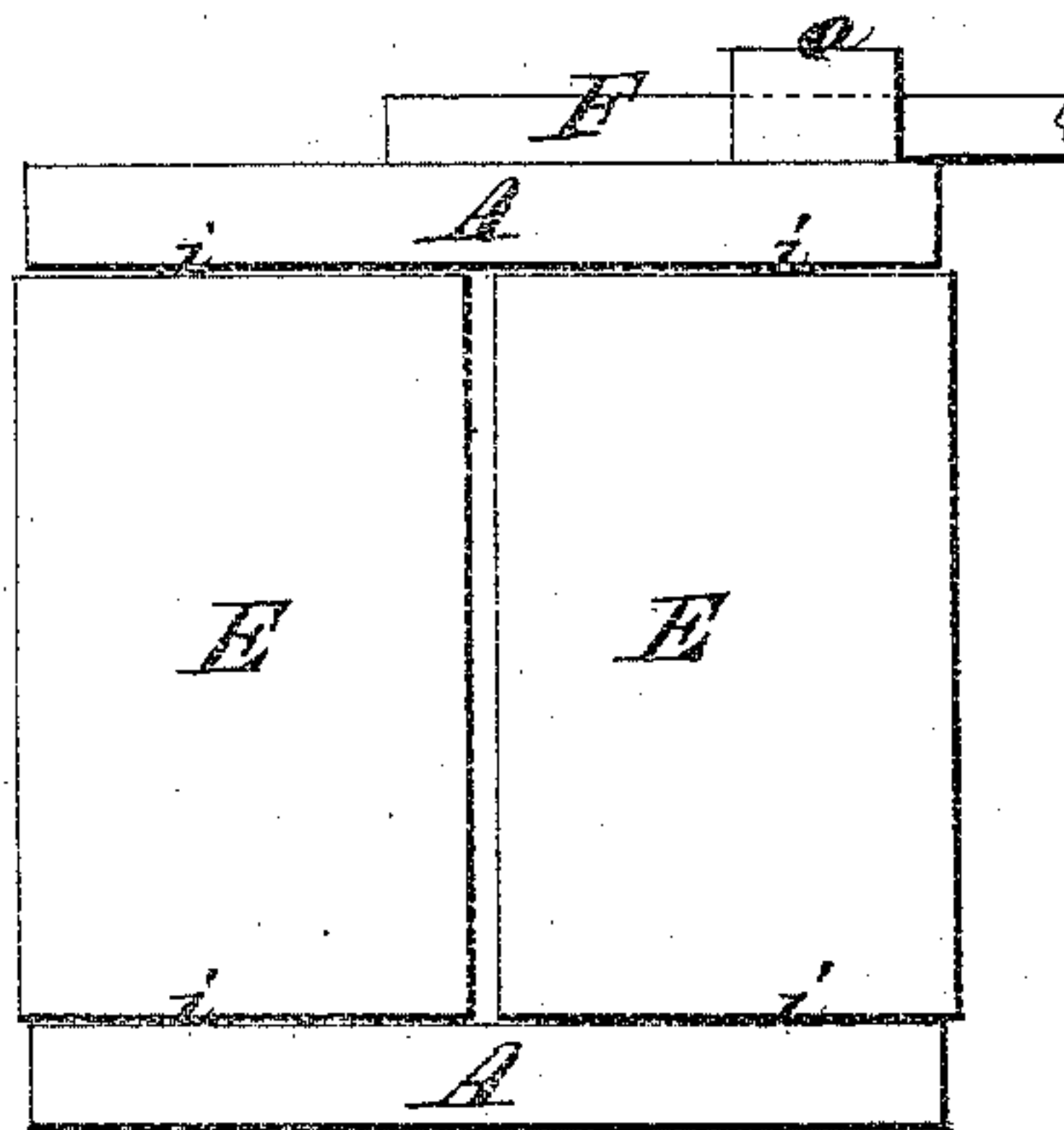


Fig. 3

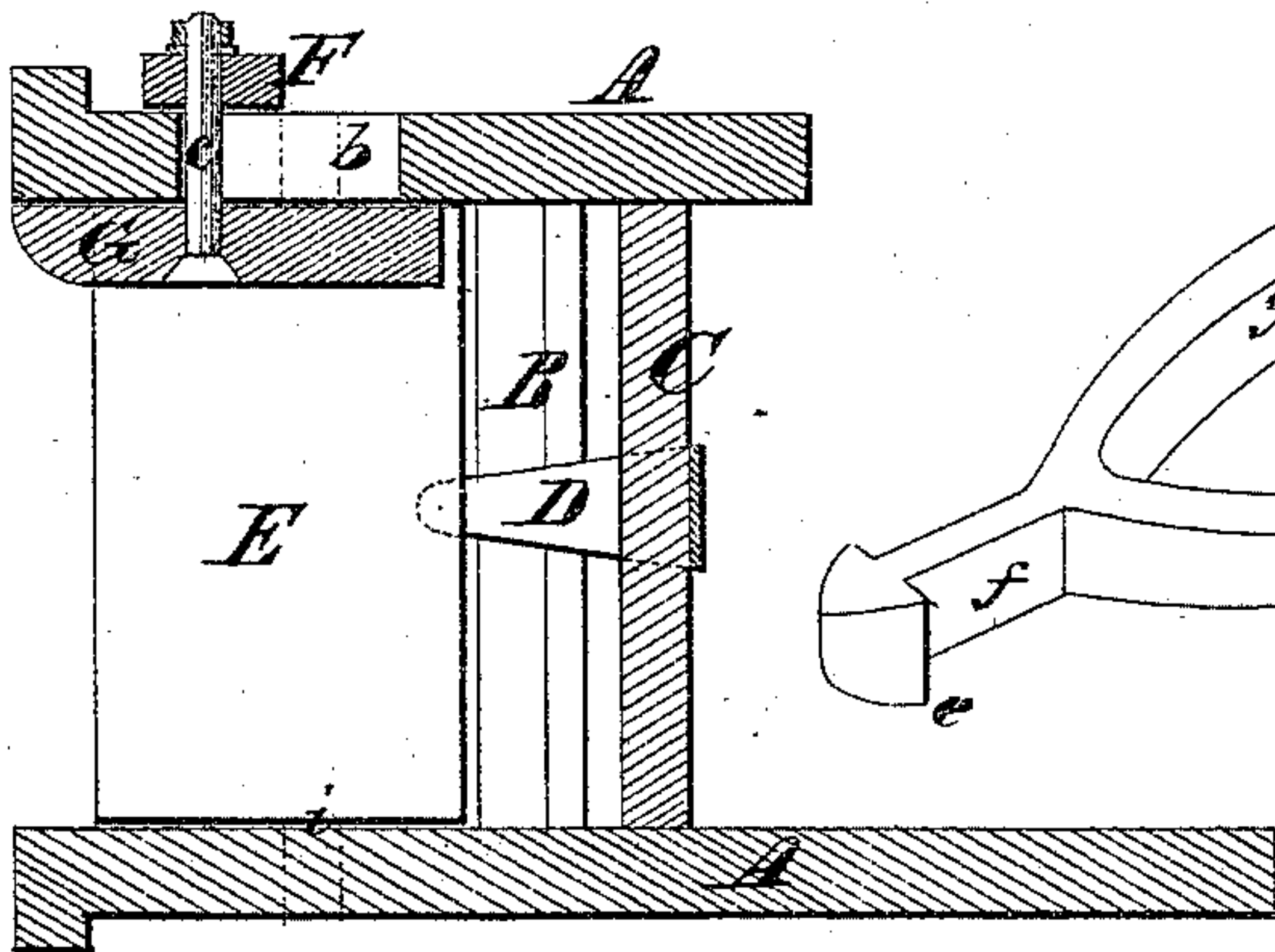


Fig. 5

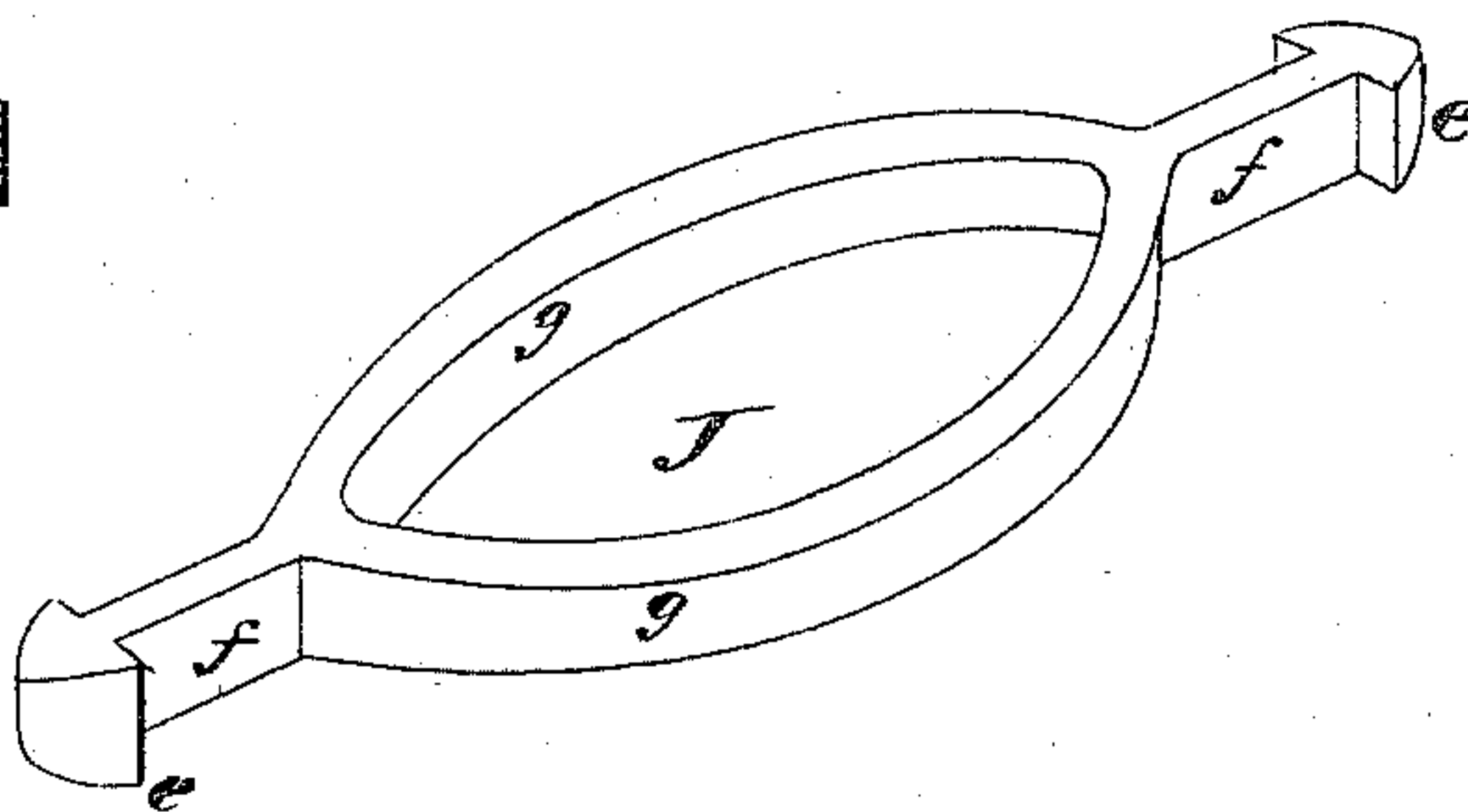
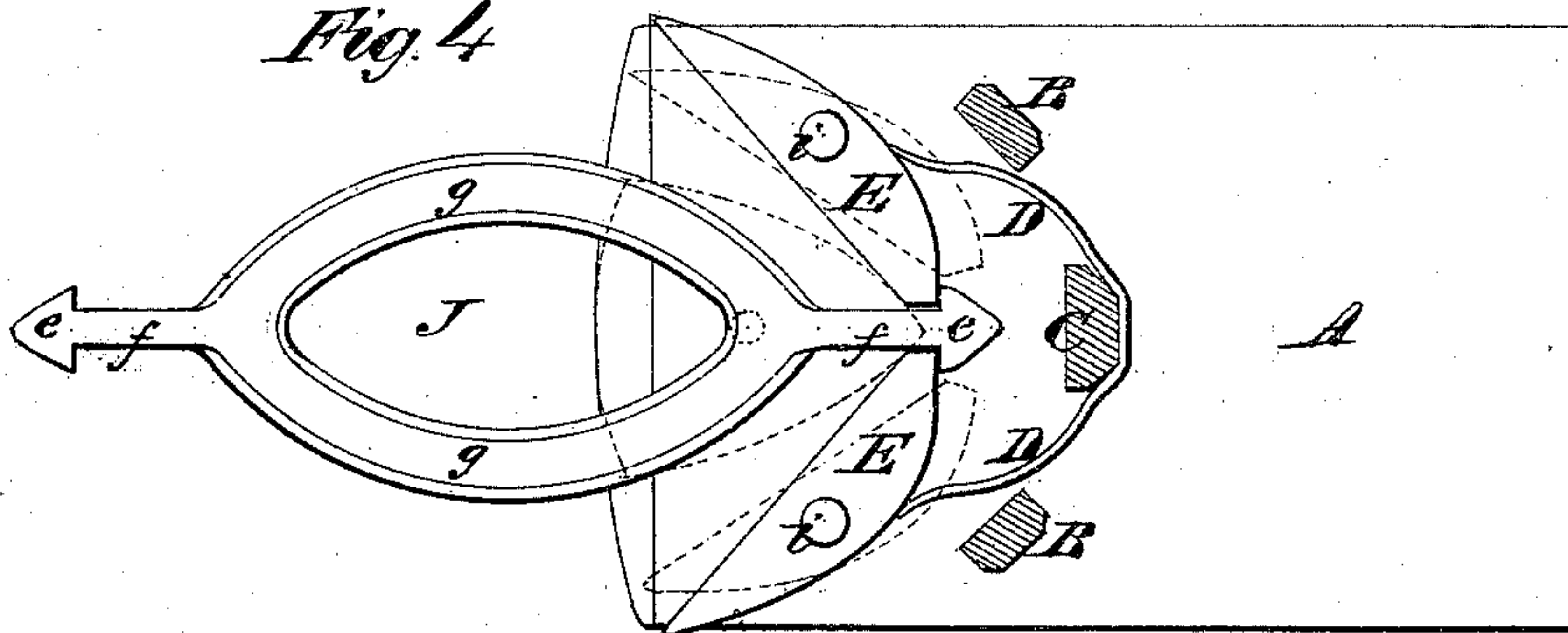


Fig. 4



Witnesses.  
R. H. Campbell  
J. N. Campbell.

Inventor  
Chas. W. Benson  
by  
Mar. F. Smith & Co.



# United States Patent Office.

CHARLES W. BENSON, OF FREDERICK CITY, MARYLAND, ASSIGNOR FOR ONE-HALF TO RICHARD C. WATERS, OF SAME PLACE.

*Letters Patent No. 99,818, dated February 15, 1870.*

## IMPROVEMENT IN RAILWAY CAR-COUPPLINGS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, CHARLES W. BENSON, of Frederick City, in the county of Frederick, and State of Maryland, have invented a new and improved Car-Coupling; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an elevation of one side of my improved coupling-box.

Figure 2 is a front view of the same.

Figure 3 is a section taken longitudinally through the center of the coupling-box, in a vertical plane.

Figure 4 is a top view of the coupling-box and its link attached, as seen by removing the top plate or wall of the box.

Figure 5 is a perspective view of a coupling-link.

This invention relates to certain novel improvements on that class of car-couplings which will couple themselves when two cars are brought together, and which will become disconnected in the event of the accidental turning over of a car.

The nature of my invention consists—

First, in forming the outwardly flaring opening of the coupling-box of two hinged or pivoted walls, which are acted upon by springs applied to the internal link abutment, and in the employment, at the upper portion of such flaring opening, of a double beveled wedge, applied to a vibrating arm, and made longitudinally movable by means of said arm, whereby the side walls or gates of the box can be separated at their rear ends for allowing the removal of the coupling-link or bar, and the uncoupling of two cars, as will be hereinafter explained.

Second, in a coupling-link having formed upon its end or ends narrow elongated necks, terminating in triangular or double-beveled heads, as will be hereinafter explained.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings—

A A represent the upper and lower horizontal walls of the coupling-box, and E E are the front walls thereof.

The upper and lower walls A A are secured together, so as to leave a proper vertical space between them, by means of three posts, B B and C, the latter one of which is arranged in the longitudinal median line of the box, and in such relation to the rear ends of the gates E E as to serve the purpose of an abutment for the coupling-link during the act of effecting a coupling.

The two side posts B B serve as lateral abutments for the springs D D, to prevent the rear ends of gates E from separating unduly.

The gates E are pivoted at *i i* to the upper and lower walls A A, so as to swing freely, and they are made strong and substantial.

These gates constitute the oblique walls of the entrance for the coupling-link, and their rear ends are acted by springs D D, which hold them in the position indicated in fig. 4, in black lines, and allow these ends to be moved apart, as indicated by dotted lines in this figure.

On the inferior side of the superior wall A of the box is a wedge G, which is connected to the shortest end of a lever F, by a pin *e*, that is free to play in a longitudinally oblong slot *b*, made through the superior wall A. By vibrating lever F the wedge G will receive a longitudinal movement, and by means of this wedge and its lever a person can spread apart the rear ends of the gates E, and allow the coupling-link to be withdrawn, without the necessity of getting between the platforms of the cars.

The link J has an open elliptical body *g*, terminated at opposite ends of the longest diameter of the ellipse, by narrow necks *f f* and heads *e e*.

The gates E E catch and hold the link by its heads *e*, and whenever it is necessary to effect a coupling with a car which has the well-known form of coupling-pin, the pin will be dropped through the link *g*, the opposite end of the coupling-link being held by its head and the gates E.

I am aware that hinged gates have been hitherto used in car-couplings, and also that it is not new to employ a coupling-link with coupling-shoulders formed on its extremities, and therefore I do not claim such contrivances as my invention.

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

1. The post C, serving as a spring support, and also as an abutment for coupling-bars, in combination with the hinged gates E, substantially as described.

2. The two hinged or pivoted gates E E, adapted to form the sides of the coupling-box, the springs D D, applied to bar C, behind said wings, and a longitudinally movable wedge G, arranged in front and at the upper ends of said gates E E, substantially as described.

CHARLES W. BENSON.

Witnesses:

RICHARD C. WATERS,  
JAMES J. ENGLISH.