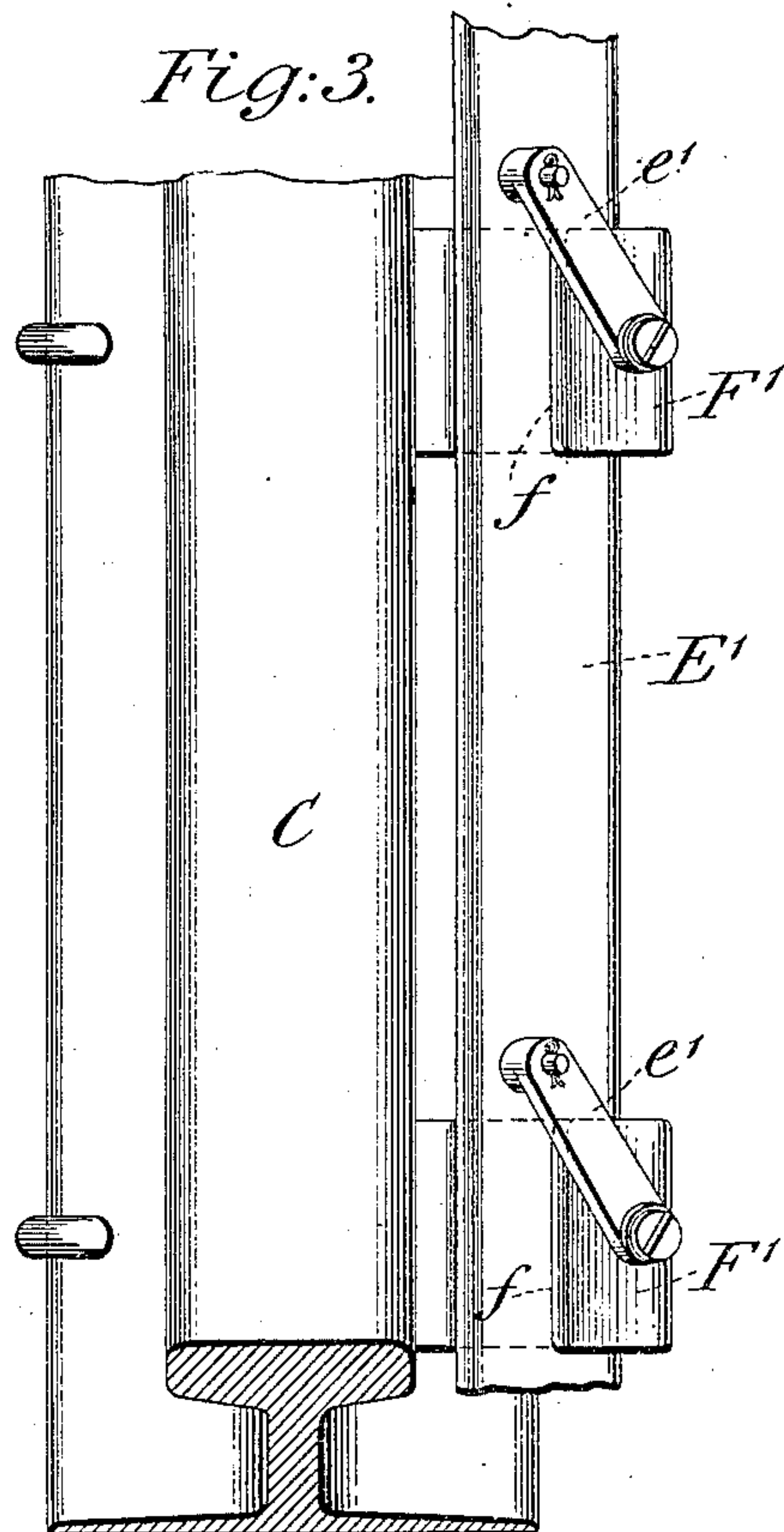
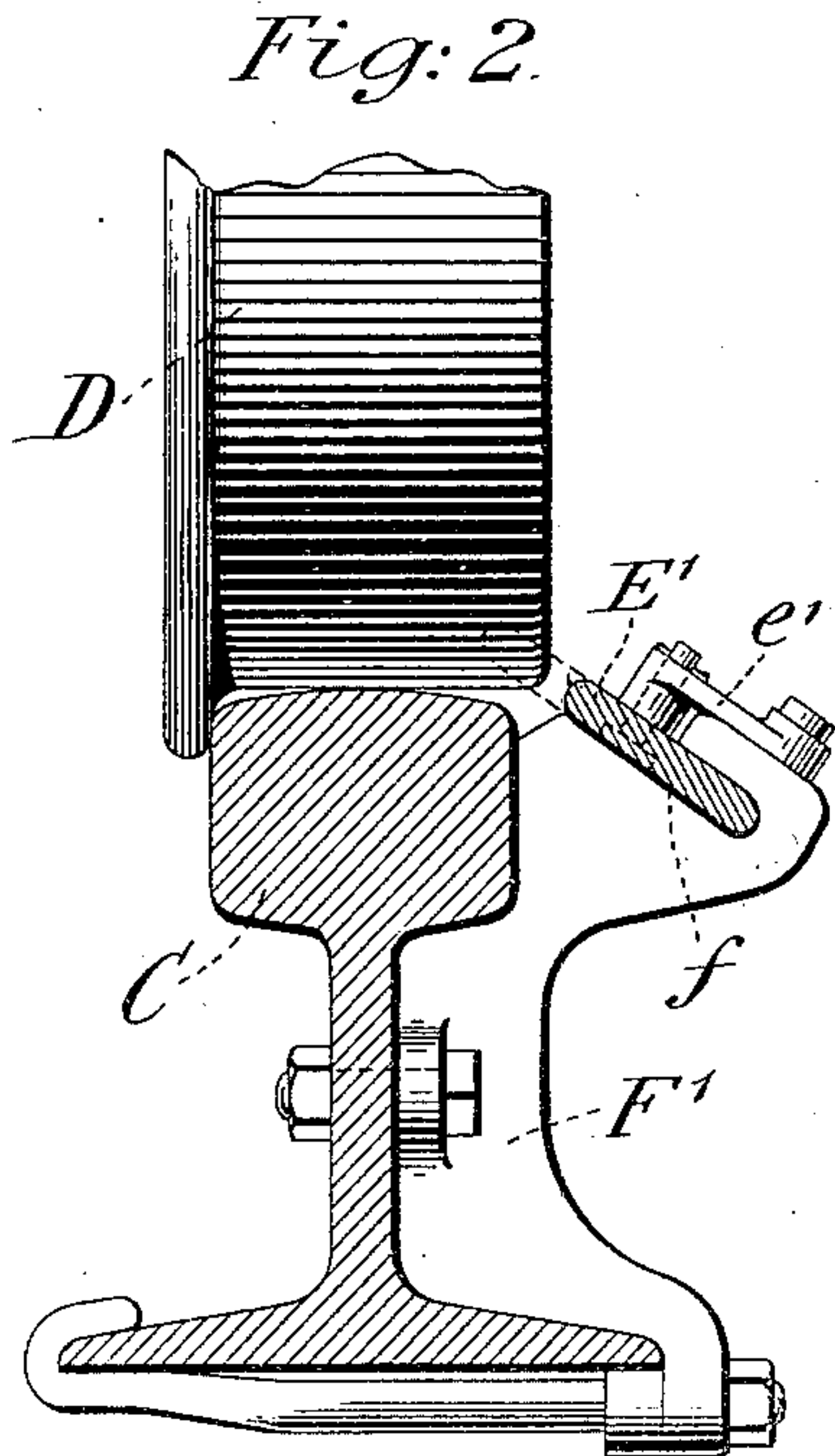
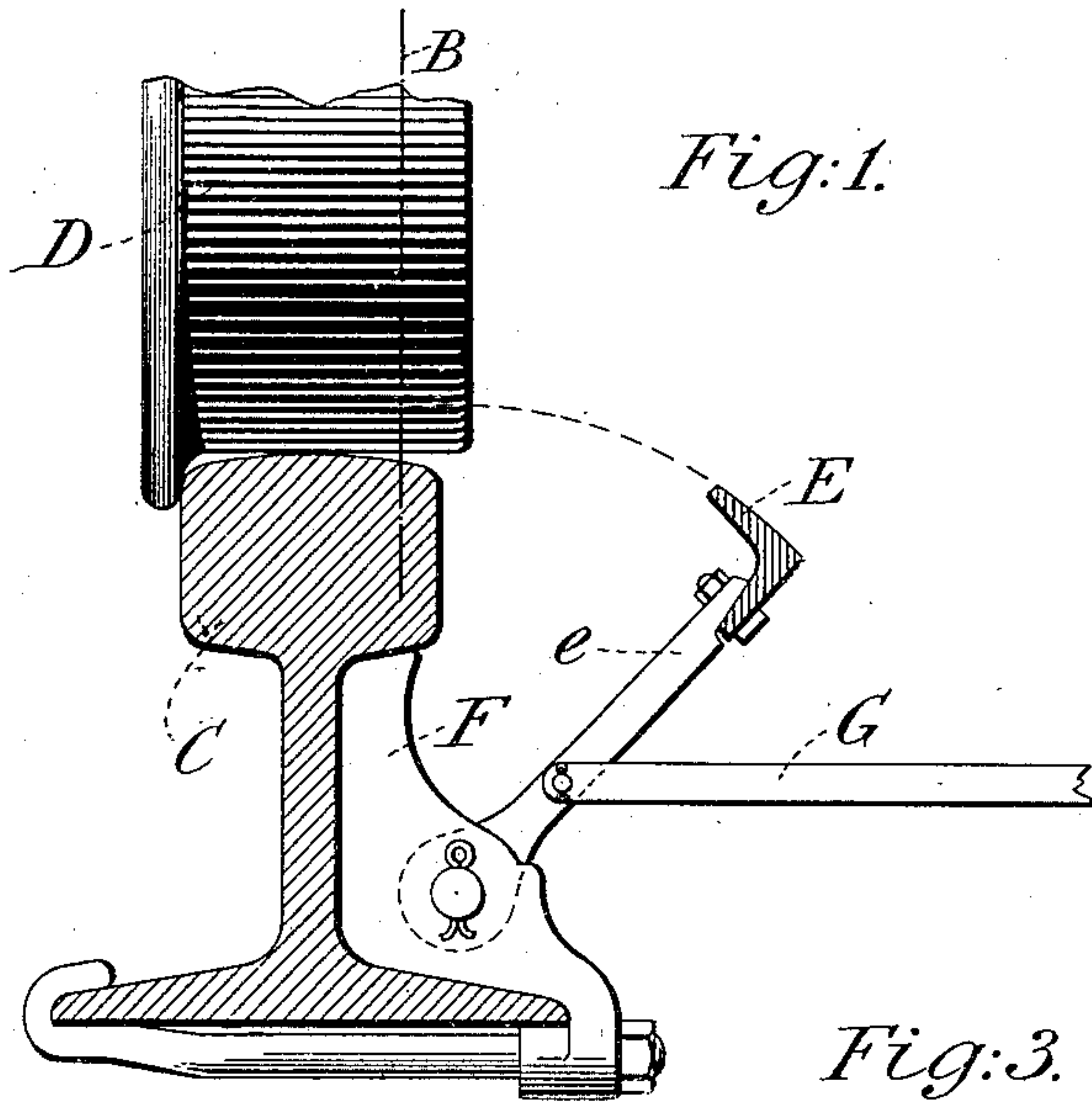


No. 863,912.

PATENTED AUG. 20, 1907.

W. E. FOSTER.
DETECTOR BAR.

APPLICATION FILED JUNE 8, 1906.



Witnesses:
John A. Rennie
E. N. Locky

Inventor:
Walter E. Foster
By
Geo. E. Rennie
his Attorney.

UNITED STATES PATENT OFFICE.

WALTER E. FOSTER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE UNION SWITCH AND SIGNAL COMPANY, OF SWISSVALE, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

DETECTOR-BAR.

No. 863,912.

Specification of Letters Patent.

Patented Aug. 20, 1907.

Application filed June 8, 1906. Serial No. 320,694.

To all whom it may concern:

Be it known that I, WALTER E. FOSTER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Detector-Bars, of which the following is a specification.

This invention relates to detector bars, and the object of the invention is to provide a detector bar and means for moving it against a face of a wheel.

Heretofore, so far as I am aware, detector bars have been connected with means for moving them into engagement with either the tread of a wheel or with the periphery of the wheel flange according as the bar was located on the outside or the inside of the rail. The most general way is to move them vertically in close proximity to the head of the rail. There are certain disadvantages connected with this method, among others the liability of the bar to bend or warp thereby causing undue friction between the bar and the head of the rail if the bend is toward the rail, and if away from the rail the bar will sometimes move up outside the wheel. Even when the bar maintains its parallel relation with the rail, it frequently fails to engage the tread of the wheel and this is particularly true when the modern large rail is used.

I will describe preferred embodiments of my invention and then point out the novel features in claims.

In the accompanying drawings:—Figure 1 is a sectional view of a rail and a detector bar showing one form of my invention, part of a wheel being shown on the track. Fig. 2 is a similar view showing another form. Fig. 3 is a plan view of part of a rail and part of a detector bar as illustrated in Fig. 2.

I have not illustrated and in the following description shall not describe specifically the means for moving the detector bar either laterally or longitudinally, for any of the well known devices for imparting movement to detector bars now in use may be employed, and it is to be understood that I do not limit my invention to any special means for moving the bar.

Referring to Fig. 1, C indicates a rail, D part of a wheel thereon, and E a detector bar. In this case the detector bar is mounted on a series of arms *e*, one only being shown, and each arm will be pivoted at its lower end in a bracket F secured to the rail. As shown, the

bar E is supposed to be in its normal position and any means, such for example as reciprocating bars G, may be employed to move it from its normal position to the other extreme of its movement such for instance as indicated by the line B. The arms *e* must be of sufficient length to carry the bar above the head of the rail during a portion of its movement, and such movement toward the rail must be sufficient to insure that it will engage the face of a wheel, if on the rail, before such movement is completed, irrespective of the width of the head of the rail.

Referring to Figs. 2 and 3, I have shown another form of detector bar indicated by E'. This bar is supported in slots *f* in brackets F'. The slots *f* incline upwardly toward the head of the rail and are so positioned that when the bar is moved laterally in the direction indicated by dotted lines it will necessarily engage the face of a wheel should it be on the rail during such movement. The dotted lines indicate both the path and substantially the extent of movement it is desirable to impart to the detector bar over and above the head of the rail. The lateral movement of this detector bar may be caused by any desired mechanism. For instance the bar may be connected by toggle links *e'* to the brackets F' and then if the bar be caused to move longitudinally it will also be forced to move laterally.

While I have illustrated the detector bars as mounted on the outside of the rail to engage the outer face of the wheel, it is obvious they may be mounted on the inside of the rail to engage the inner face of a wheel.

Having described my invention, I claim:

1. The combination with a rail, of a detector bar mounted adjacent to the rail and movable upwardly and laterally to engage a face of a wheel on said rail.
2. The combination with a rail, of a detector bar mounted adjacent to the rail and movable to a point above the rail to engage a face of a wheel on the rail.
3. The combination with a rail, of a detector bar mounted adjacent to the rail and movable above and across a portion of the head of said rail.

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

WALTER E. FOSTER.

Witnesses:

J. S. HOBSON,
T. H. PATENALL.