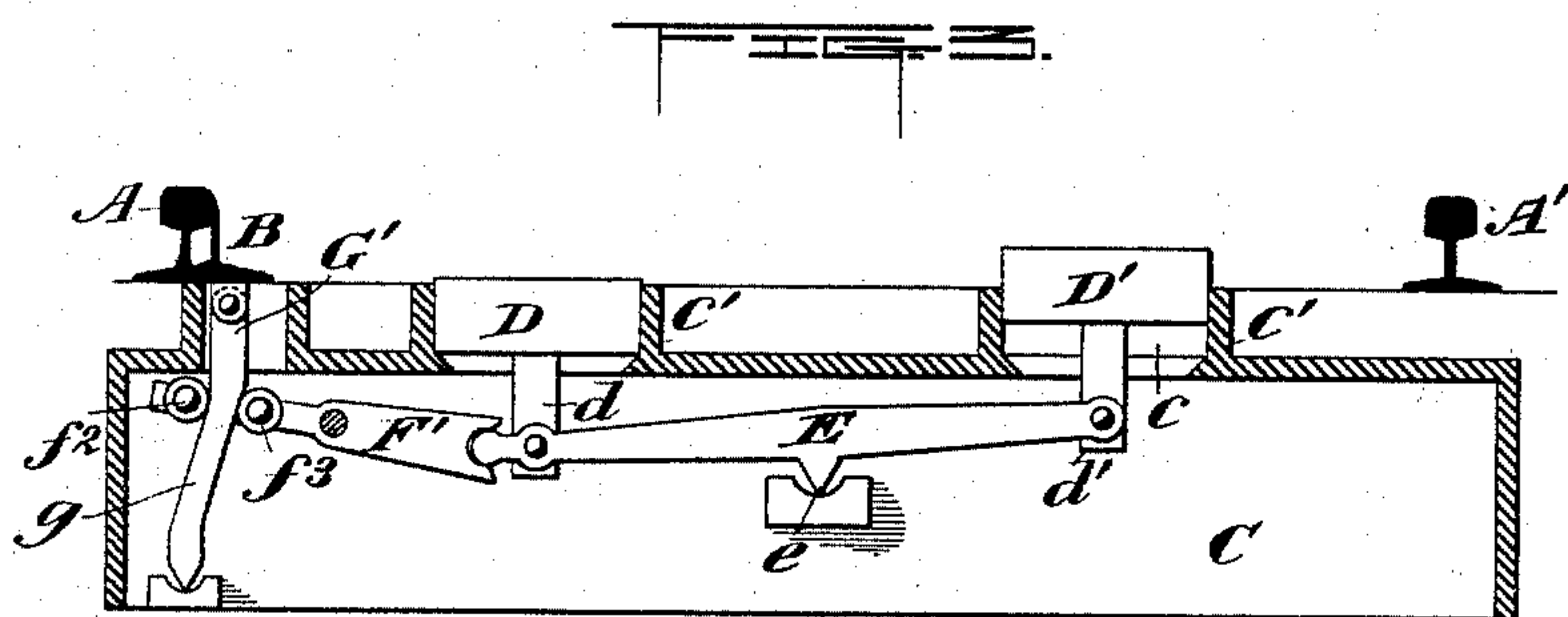
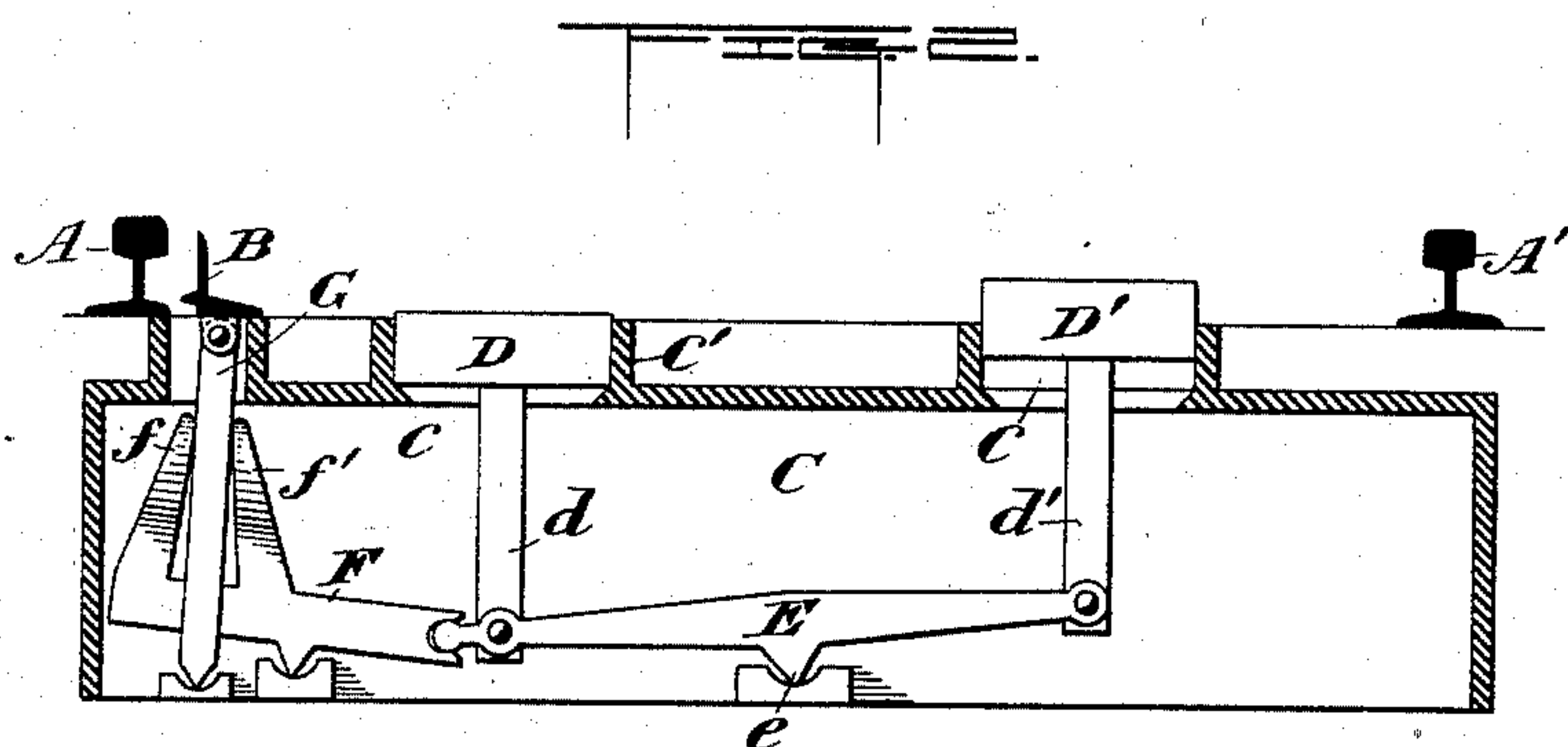
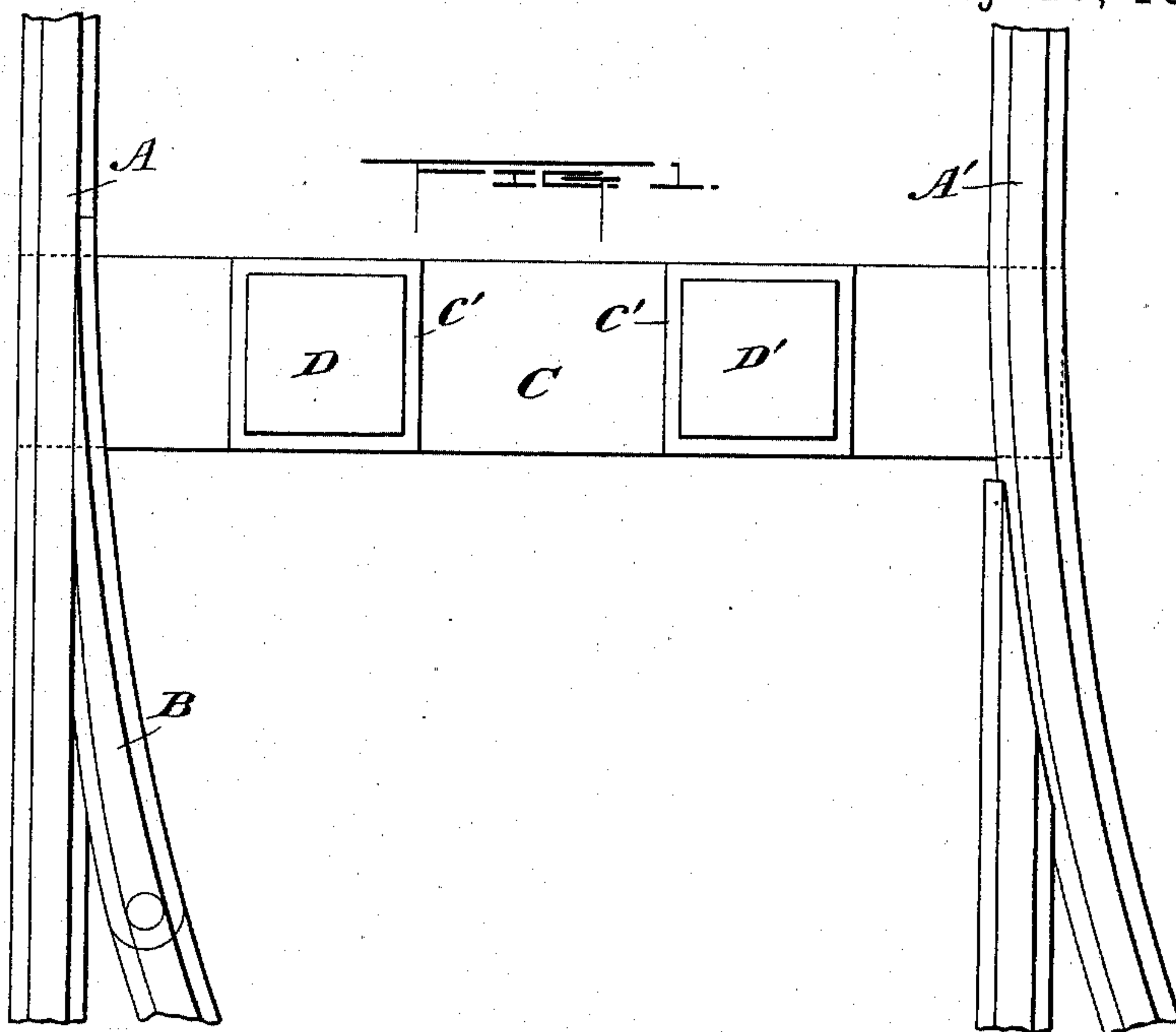


(No Model.)

S. F. CLOUSER.
RAILROAD SWITCH.

No. 522,782.

Patented July 10, 1894.



Witnesses.

A. J. Howard.
George Barry.

Inventor.
Samuel F. Clouser,
by attorneys.
Brown & Howard

UNITED STATES PATENT OFFICE.

SAMUEL F. CLOUSER, OF BROOKLYN, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE NEW YORK CAR SWITCH COMPANY, OF NEW YORK, N. Y.

RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 522,782, dated July 10, 1894.

Application filed March 26, 1894. Serial No. 505,227. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL F. CLOUSER, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful
5 Improvement in Railroad-Switches, of which the following is a specification.

My invention relates to an improvement in railroad switches, with the object in view of providing a switch which may be easily operated by pressure upon vertically movable plungers, which shall consist of few parts and may be furnished at comparatively low initial cost.

With these ends in view, my invention consists in certain features of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a top plan view of a portion of a rail road track at the point where the switch is located, showing the movable switch tongue and the location of the operating plungers or treadles. Fig. 2 is a view in vertical section through the switch box in a plane transversely across the track, and Fig. 3 is a similar view, showing a modified form of connection between the tongue operating arm and the rocking lever.

The rails of the main track are denoted by
30 A, A' and the movable switch tongue, for directing the train either along the main track or onto the shunt track, is denoted by B.

The switch operating mechanism is conveniently incased in and supported by a box
35 C which may be of heavy cast iron and is here shown as provided with openings *c* in its top which openings are surrounded by rims *c'*, forming the guides for the vertical movements of the switch operating treadles
40 D, D'. Within the box C there is mounted a vibrating lever E connected at points on opposite sides of its pivotal support *e* with the treadles D, D' by depending rods or bars *d*, *d'*. One end of the vibrating lever E has
45 a pivotal connection with one arm of a rock lever F mounted on a suitable fulcrum in the box. The opposite arm of said rock lever F extends upwardly in the form of two branches or jaws *f*, *f'*, which loosely engage
50 the opposite sides of a vibrating arm G pivoted to a suitable support in the box and connected at its upper end with the switch tongue B. As the vibrating lever E is rocked

by the depression of one of the treadles or the other, it will rock the lever F and its jaws 55 or branches *f*, *f'* will slide along the opposite sides of the vibrating lever G, forcing it in the one direction or the other to open or close the switch tongue, as may be desired.

This structure presents but few parts and 60 these may be mounted in such a manner as to do away almost entirely with pivotal bolts. The sliding movement of the jaws of the rock lever along the vibrating arm gives the switch tongue a gradual movement, as distinguished 65 from a jerky movement which would be liable to make it rebound.

In the form shown in Fig. 3, the connection of the rock lever F' with the vibrating arm G' is made by a pair of jaws *f*², *f*³ preferably provided with antifriction rollers, as shown, the said jaws being arranged to embrace the opposite sides of an oblique portion *g* of the vibrating arm G' in such a manner that the movement of the rock lever in 75 one direction will gradually force the vibrating arm, after the manner of the action of an inclined plane in one direction and, when moved in the opposite direction, will operate upon the arm to force it back. 80

What I claim is—

1. A railway switch, comprising a vibrating lever, means for operating it, a vibrating arm connected with the switch tongue and a rock lever having one arm pivotally engaged 85 with the vibrating lever and its opposite arm provided with bearings arranged to move along relative to and in engagement with the vibrating arm to swing it back and forth, substantially as set forth. 90

2. A railway switch, comprising a vibrating lever, vertically movable treadles connected with the opposite arms of the lever, a vibrating arm connected with the switch tongue and a rock lever having one of its 95 arms pivotally engaged with one arm of the vibrating lever and another arm extended upwardly and engaged with the vibrating arm and having a sliding movement along said arm to move it back and forth, substantially as set forth. 100

SAMUEL F. CLOUSER.

Witnesses:

FREDK. HAYNES,
R. B. SEWARD.