

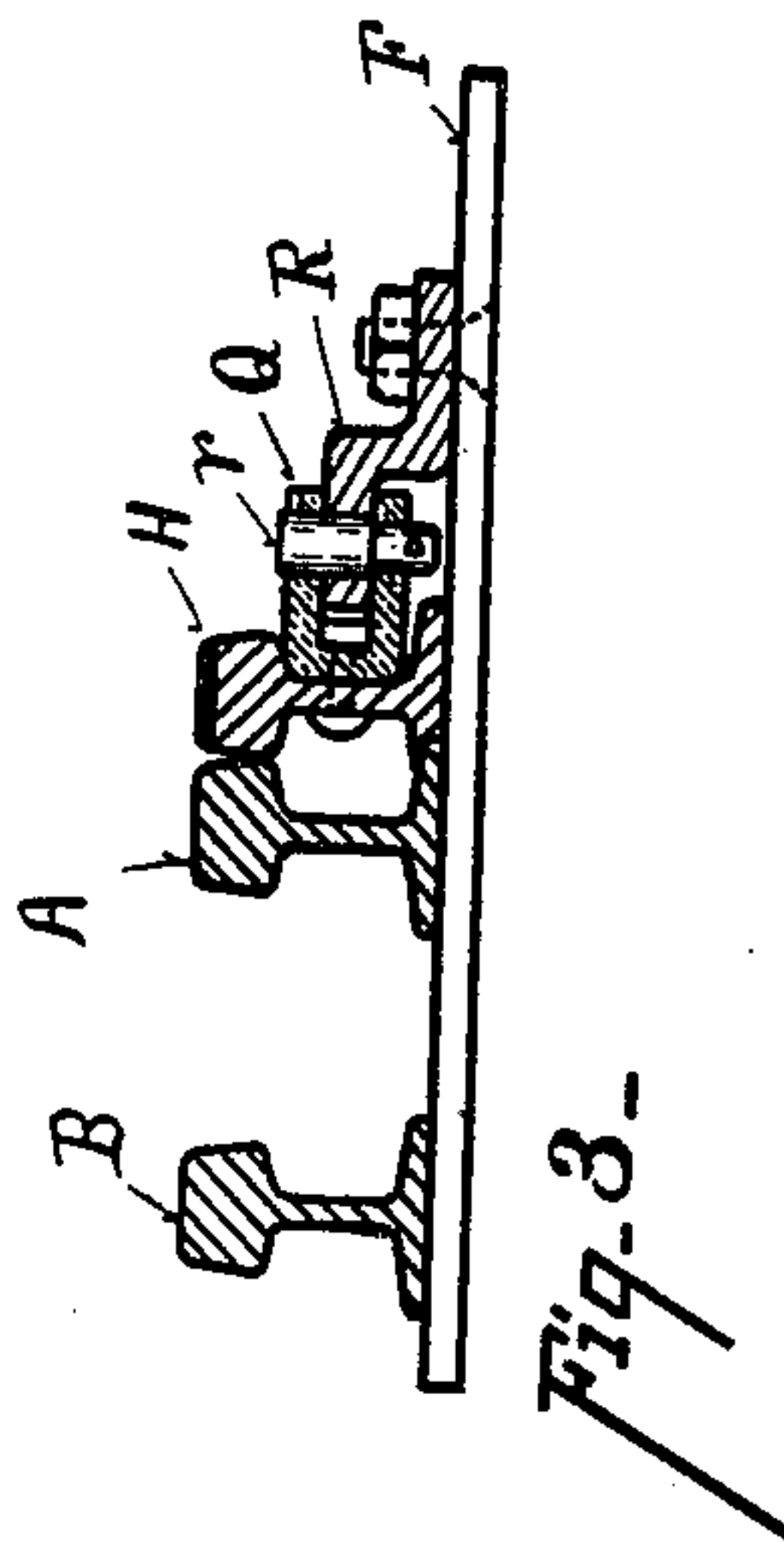
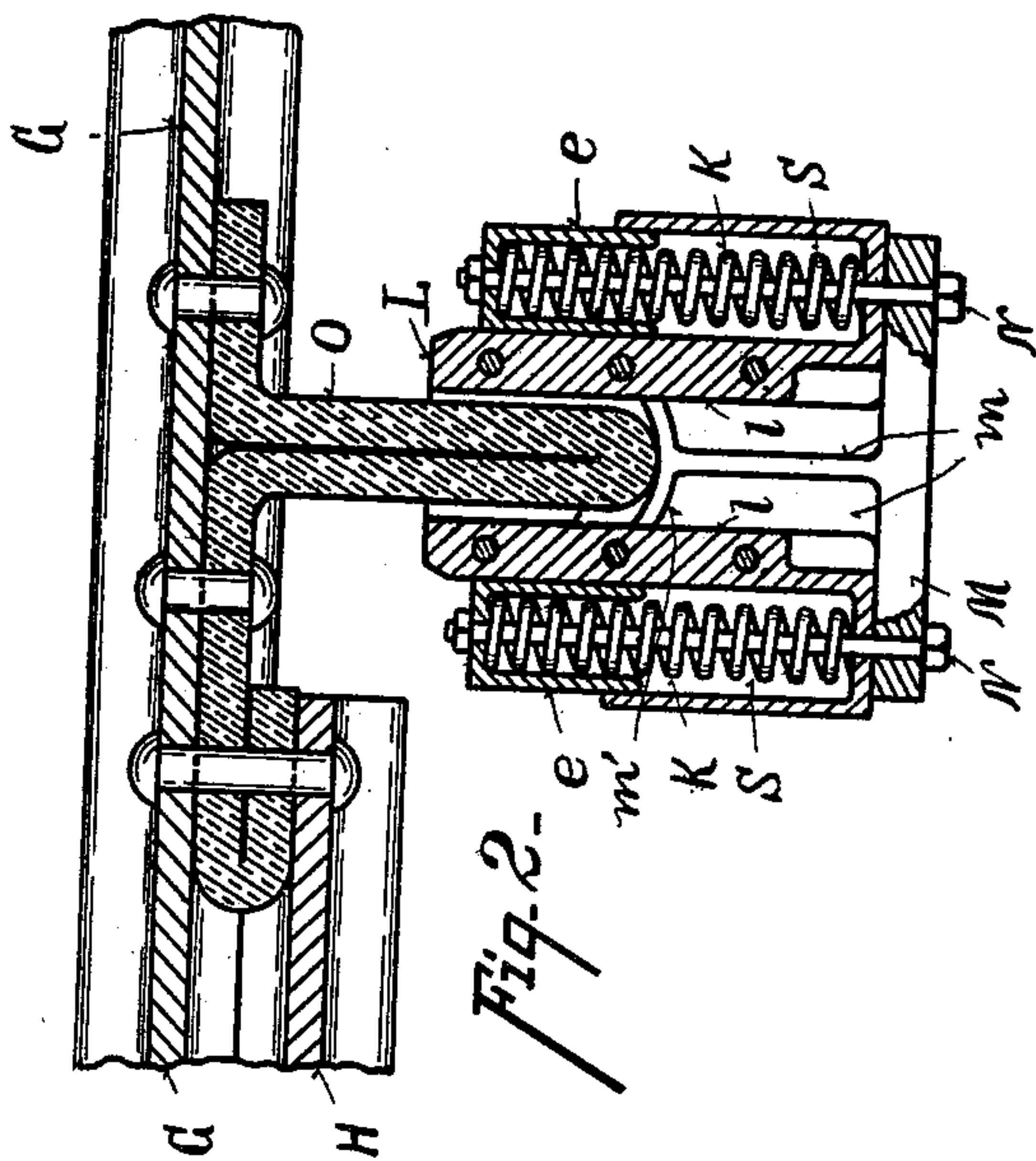
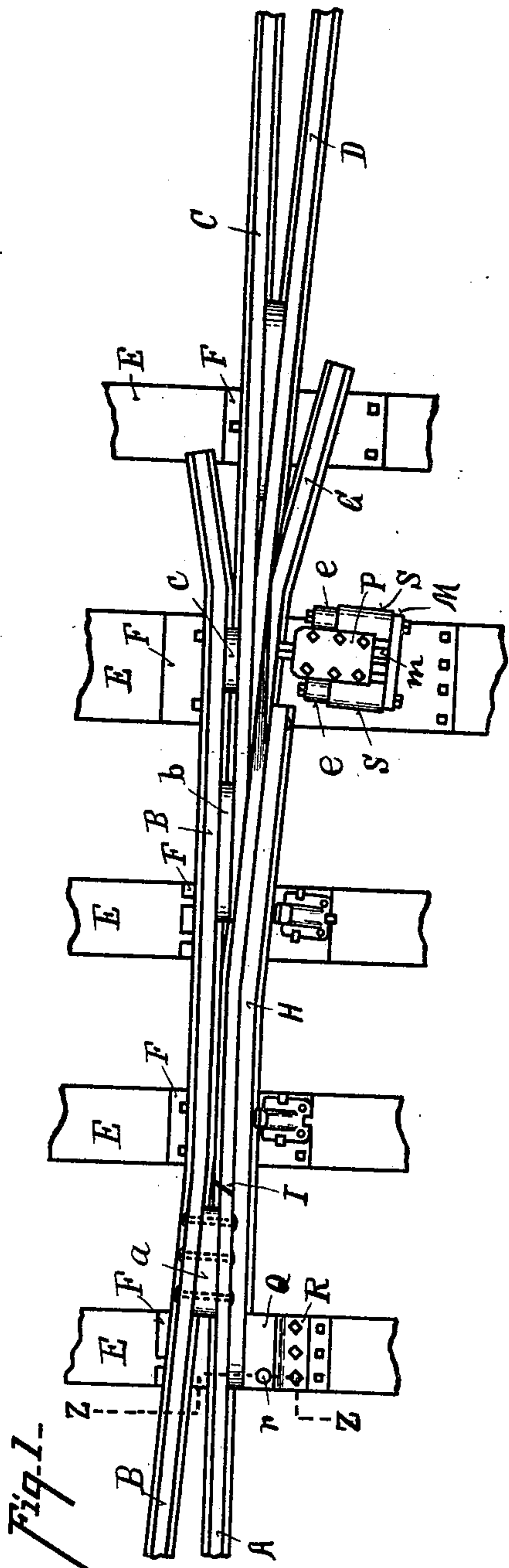
No. 627,438.

C. PARTINGTON.
SPRING FROG.

Patented June 20, 1899.

(No Model.)

-(Application filed Apr. 22, 1899.)



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES PARTINGTON, OF NEWPORT, KENTUCKY, ASSIGNOR TO THE
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SPRING-FROG.

SPECIFICATION forming part of Letters Patent No. 627,438, dated June 20, 1899.

Application filed April 22, 1899. Serial No. 714,022. (No model.)

To all whom it may concern:

Be it known that I, CHARLES PARTINGTON, residing at Newport, in the county of Campbell and State of Kentucky, have invented certain new and useful Improvements in Spring-Frogs, of which the following is a specification.

The object of my invention is to provide a durable and effective spring-frog.

The features of my invention are more fully set forth in the description of the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view of my improvement. Fig. 2 is an enlarged horizontal section of the spring and its connections with the moving rails. Fig. 3 is a section on line *z z*, Fig. 1.

A represents the main rail of the main track, and B the main rail of the side track. C represents the point-rail for the main track.

D represents the point-rail for the side track and in line with the main rail B.

a b c represent filling-blocks between the stationary rails, which are bolted together. The stationary rails are secured to the ties E rigidly, preferably resting upon tie-plates F.

G represents the moving wing-rail, which is in line with the main rail A at its forward end.

H represents a reinforcing-rail rigidly connected to the moving rail D, the heads of the two rails abutting closely, so that the reinforcing-rail H is a tread-rail, upon which the face of the car-wheel rolls, so that the joint I at the junction of the moving and main rails is not subjected to blows of the wheel, which would otherwise batter the end of the rails, and the joint would soon be destroyed.

In order that the moving rails may be held from rocking or tipping under the thrust of train-wheels and in order that all strains may be taken off the main rails A near the joint I, I provide the following devices:

K K represent springs inclosed in the telescopic barrels *e*, which reciprocate within the barrels S. These housings are rigidly connected together by a bridge L, which is provided with vertical ledges *l*.

N represents tie-bolts passing through the springs and spring-housings and secured at

their rear ends to a thrust-plate M, which is provided with a stem or forward extension *m*, being held in position and guided by the vertical ledges *l* of the yoke L.

O represents a thrust-arm. It is preferably made of bar-iron bent in the form shown, the T-head of which is connected to the webs of the moving rail G and the reinforcing-rail H, as shown in Fig. 2. The outer end of the arm O bears against the stem or end *m'* of the thrust-plate. When the rail G is moved by the wheels of the train, the thrust-plate is forced outward, coiling the springs K, which when the wheels have passed force the moving rail G back into position.

In order to prevent the thrust-arm O from rocking, I provide a cap P, (see Fig. 1,) which is rigidly secured by bolts to the ledges *l*, and thus hold both the arm O and the stem of the thrust-plate from rocking or vertical movement. This maintains the front end of the moving rail in a vertical position, yet allowing it to freely slide on the ties. The rear end of the moving rails are held in horizontal position by the following instrumentality:

Q represents a U-plate rigidly secured to the web of the reinforcing-rail H.

R represents a bracket rigidly bolted to the tie and having its outward offset end projected into the U-plate Q.

r represents a pivot, which hinges the U-plate to the bracket R. This U-plate and bracket form a brace-wing and prevent all tendency of the moving rails H and G, which are securely bolted together, to rock, maintaining them in a vertical position during their moving.

It will be seen that by hinging the moving rail H to the tie the thrusts and strains on the moving rail are not imparted to main rail A, but are sustained and borne by the fastenings to the tie.

By the means herein described I obtain a reliable and durable spring-frog, the parts of which are secured to the ties in the manner described.

Having described my invention, what I claim is—

1. In a spring-frog, in combination with the moving rail and a reinforcing-rail rigidly connected thereto, the spring thrust-arm O con-

nected to the moving and reinforcing rails and working in a yoke-guide attached to a spring-housing and operating the spring thrust-plate, substantially as herein specified.

5 2. In a spring-frog, in combination with the moving rail, a reinforcing-rail rigidly secured thereto and having their heads abutting and the brace-hinge one member of which is connected to the reinforcing-rail and the other
10 member secured to the tie, substantially as herein specified.

3. In a spring-frog, in combination with the moving rail and a reinforcing-rail abutting

the moving rail the thrust-arm O secured to the webs of said rails and having its forward 15 end working a guide formed in the spring-housing at one end of said rails and the brace-hinge secured to the reinforcing-rail and to the tie at the inner end of said reinforcing-rail, substantially as specified. 20

In testimony whereof I have hereunto set my hand.

CHARLES PARTINGTON.

Witnesses:

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