

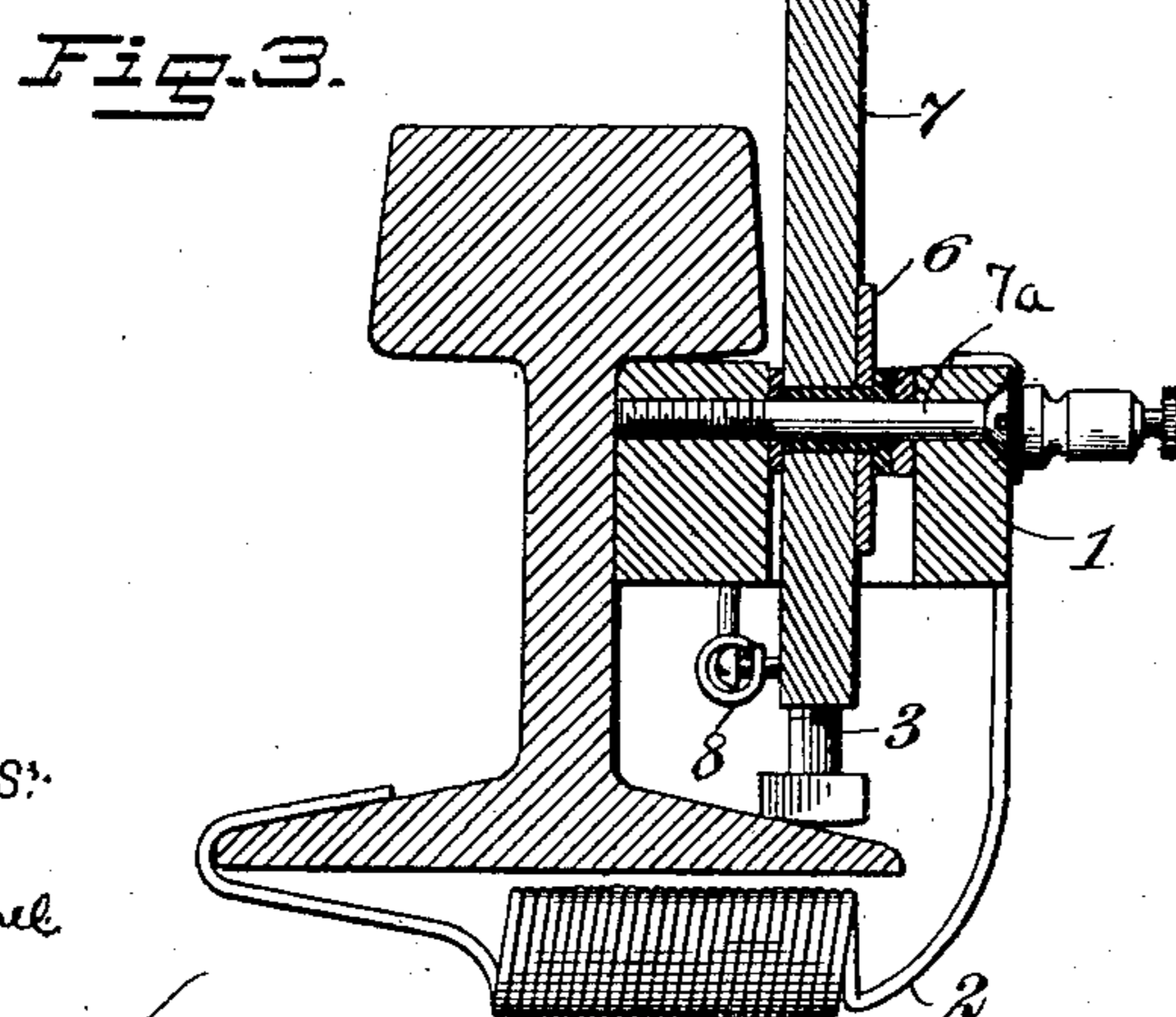
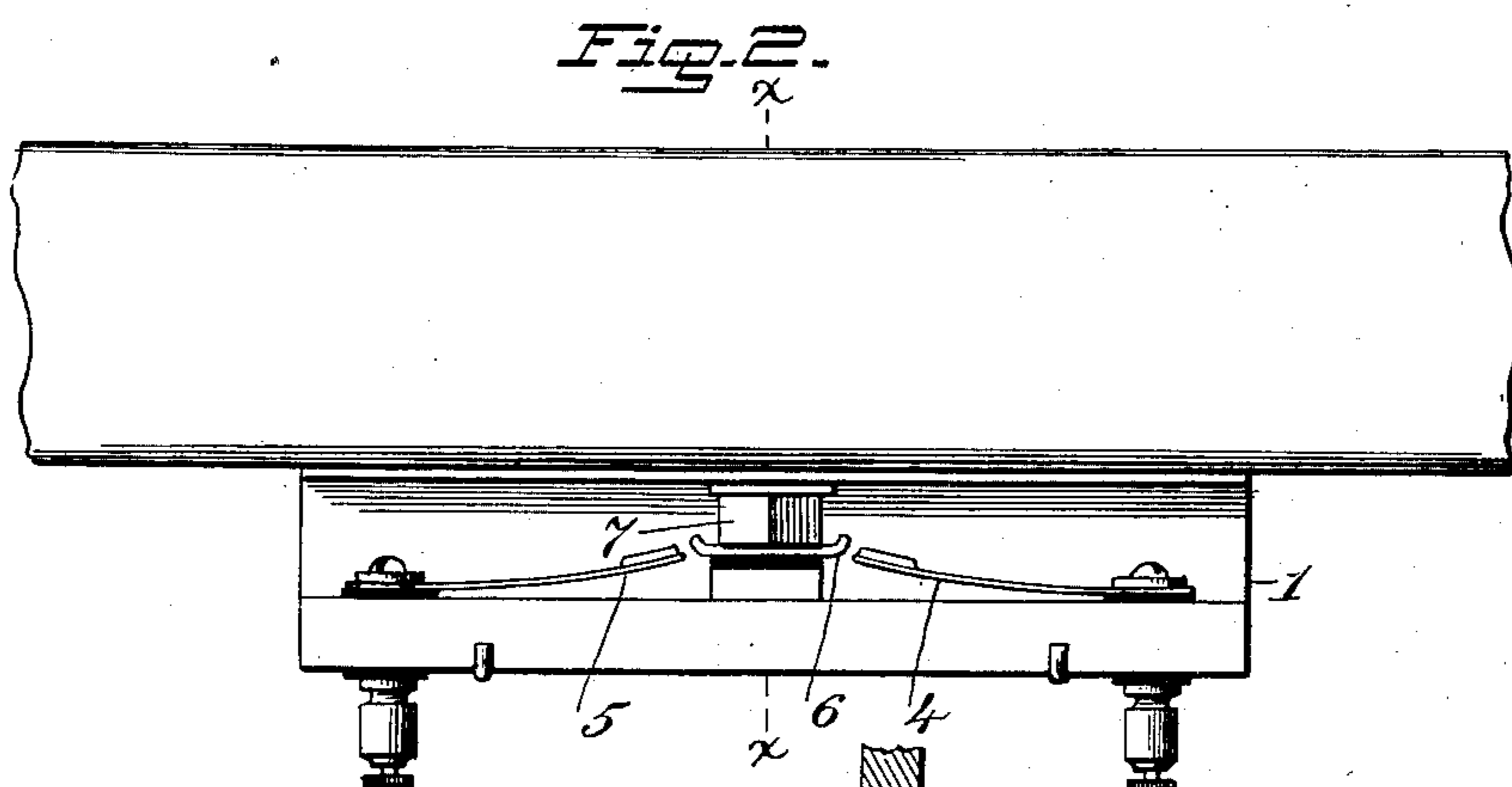
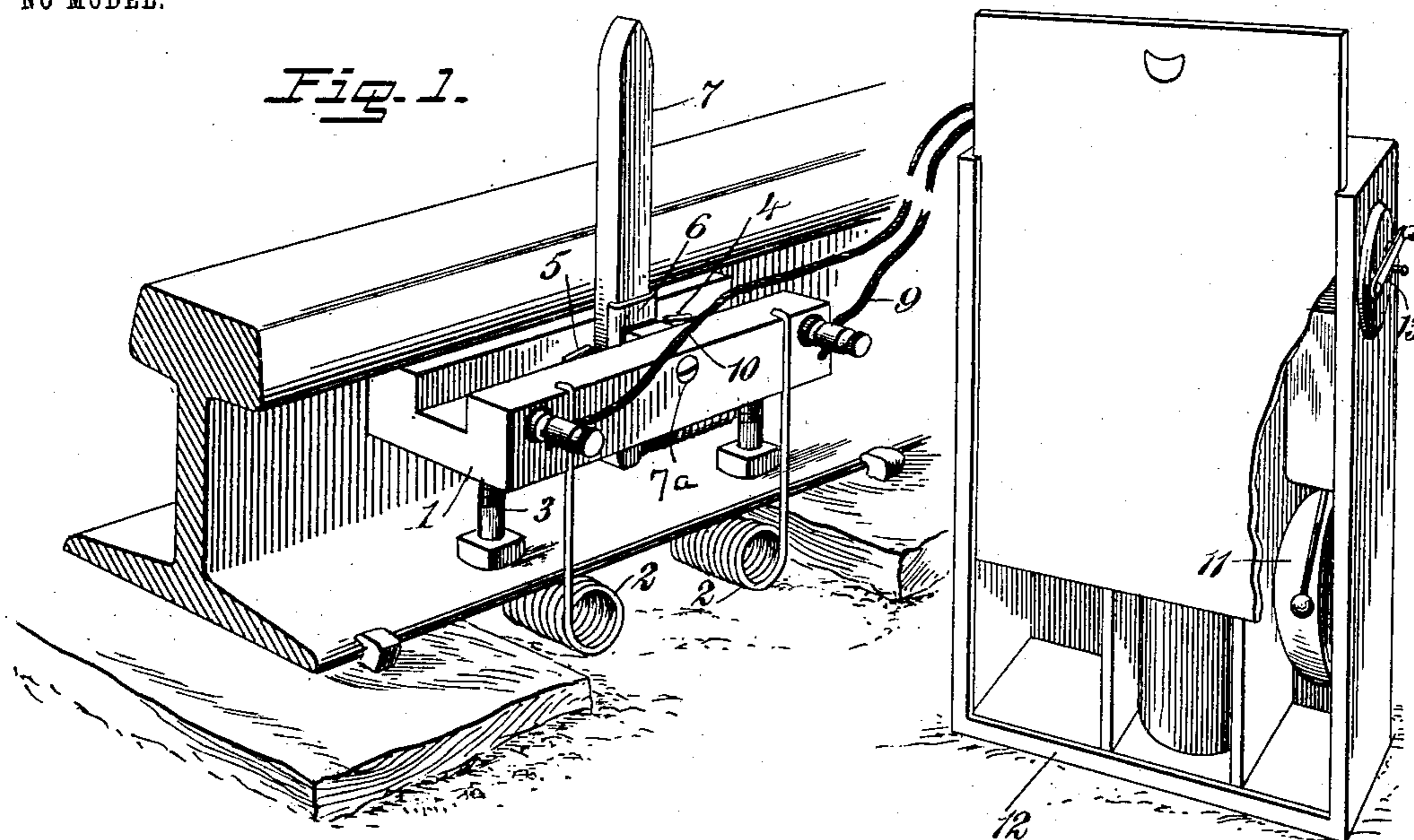
No. 734,341.

PATENTED JULY 21, 1903.

H. L. LEE.  
ELECTRIC SIGNAL.

APPLICATION FILED AUG. 5, 1902.

NO MODEL.



WITNESSES:

James F. Duhamel  
C. R. Ferguson

INVENTOR

Henry L. Lee

BY

Munroe

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

HENRY LANSING LEE, OF TIMPAS, COLORADO.

## ELECTRIC SIGNAL.

SPECIFICATION forming part of Letters Patent No. 734,341, dated July 21, 1903.

Application filed August 5, 1902. Serial No. 118,479. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY LANSING LEE, a citizen of the United States, and a resident of Timpas, in the county of Otero and State of Colorado, have invented a new and Improved Electric Signal, of which the following is a full, clear, and exact description.

This invention relates particularly to electric signals for railways, designed to notify a telegraph-operator of the approach of a train, the object being to provide in connection with the signal a circuit-closer of simple construction that may be readily attached to a railway-rail at any desired point remote from the operator's station, and designed to be closed by a passing train.

I will describe an electric signal embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of an electric signal embodying my invention. Fig. 2 is a plan view of the circuit-closer, and Fig. 3 is a section on the line *xx* of Fig. 2.

The circuit-closer comprises a frame 1 of any suitable material—such, for instance, as iron—and this frame is held in connection with a track by means of spring yielding clamps 2. These clamps at one end are connected to the frame, and then the coiled portions are passed underneath the track-rail, as shown, and the hook ends engaged over the base-flange at the opposite side from the frame.

As rails are made of different heights, I provide a means for adjusting the frame with relation to the track. As here shown, this means consists of bolts 3, the heads of which engage with the flange of the rail, while the upper portion of the frame engages against the under side of the rail-head.

Arranged in the frame are spring-contacts 4 5, the circuit through which is designed to be closed by a bridge contact-plate 6, carried on a lever 7, which normally extends upward at the side of the track, said lever being

mounted on the pivot 7<sup>a</sup>. After operating the lever it may be returned to its normal or upright position by means of a spring 8, connected at one end to the lower end of the lever and at the other end to the bottom of the frame, or by a lever made heavy at the bottom for returning the lever to a standing position. This returning device, however, may be omitted. In such case the alarm will continue to sound until the operator resets the lever manually.

From the contacts 4 5 wires 9 10 lead to the alarm-bell 11, arranged in the station. This alarm-bell is preferably placed within a casing 12, which also contains the battery.

Arranged in the circuit and attached to the casing 12 is a switch 13.

The several contacts are suitably insulated from the frame 1, as clearly shown in Fig. 2.

In the operation an approaching train will engage a front wheel of the locomotive with the lever 7, swinging the same downward and causing the plate 6 to engage the plates 4 and 5. By thus closing the circuit the alarm will be sounded. The lever, of course, may swing in either direction.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In an electric signal for the purpose specified, a circuit-closer comprising a frame, adjusting devices for holding the frame between the base-flange of a rail and the rail-head, spring clamping devices for securing the frame to a rail, and contact-plates arranged in the frame, substantially as specified.

2. In an electric signal for the purpose specified, the combination with a signal device arranged in a station and an electric circuit, of a circuit-closer comprising a frame, adjusting devices for holding the frame between the base-flange of the rail and the rail-head, contact-plates arranged in the electric circuit, and a swinging lever having a contact-plate for engaging with the first-named contact-plates, substantially as specified.

3. In an electric signal for the purpose specified, a signal device arranged in a station, a circuit-closer comprising a frame, ad-

justing devices for holding the frame between  
the base-flange of the rail and the rail-head,  
spring contact-plates in the frame and ar-  
ranged in the electric circuit, a lever mounted  
5 to swing, a plate carried by said lever for en-  
gaging with the first-named contact-plates,  
and means for removably clamping the frame  
to a rail, substantially as specified.

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

HENRY LANSING LEE.

Witnesses:

CHARLES R. BUCKEY,  
WILSON A. HART.