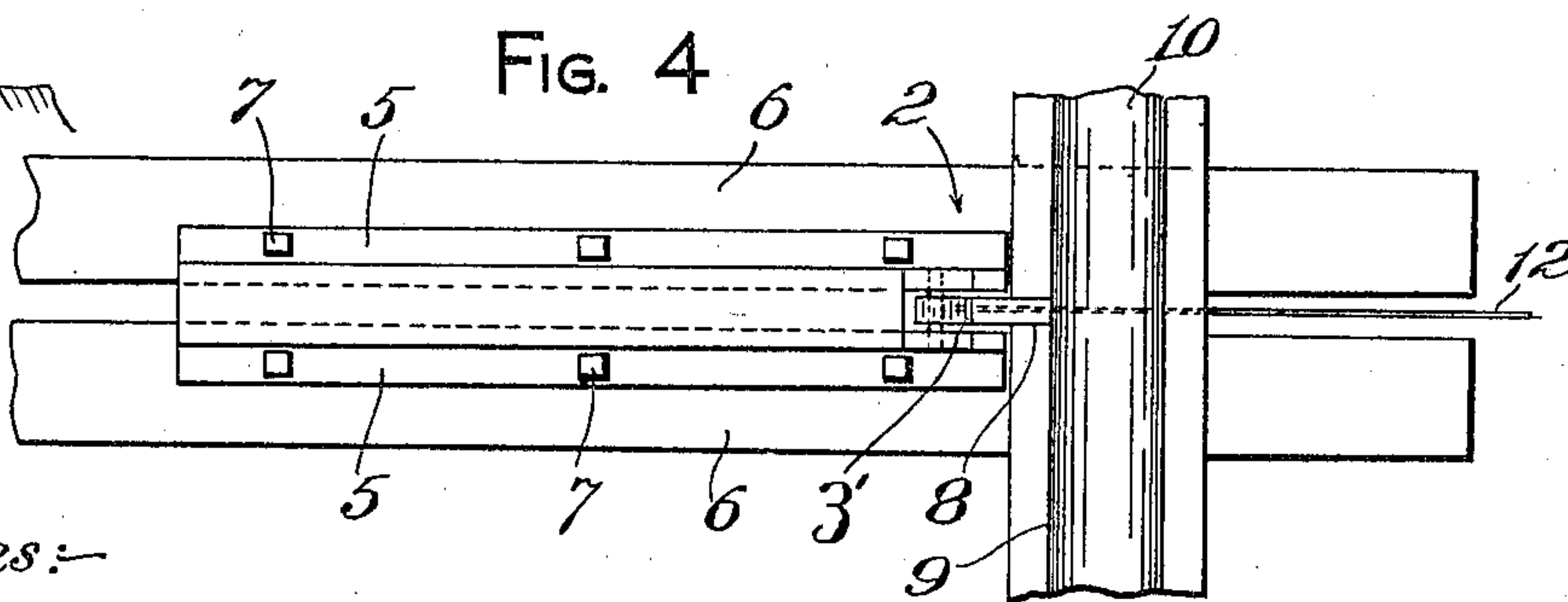
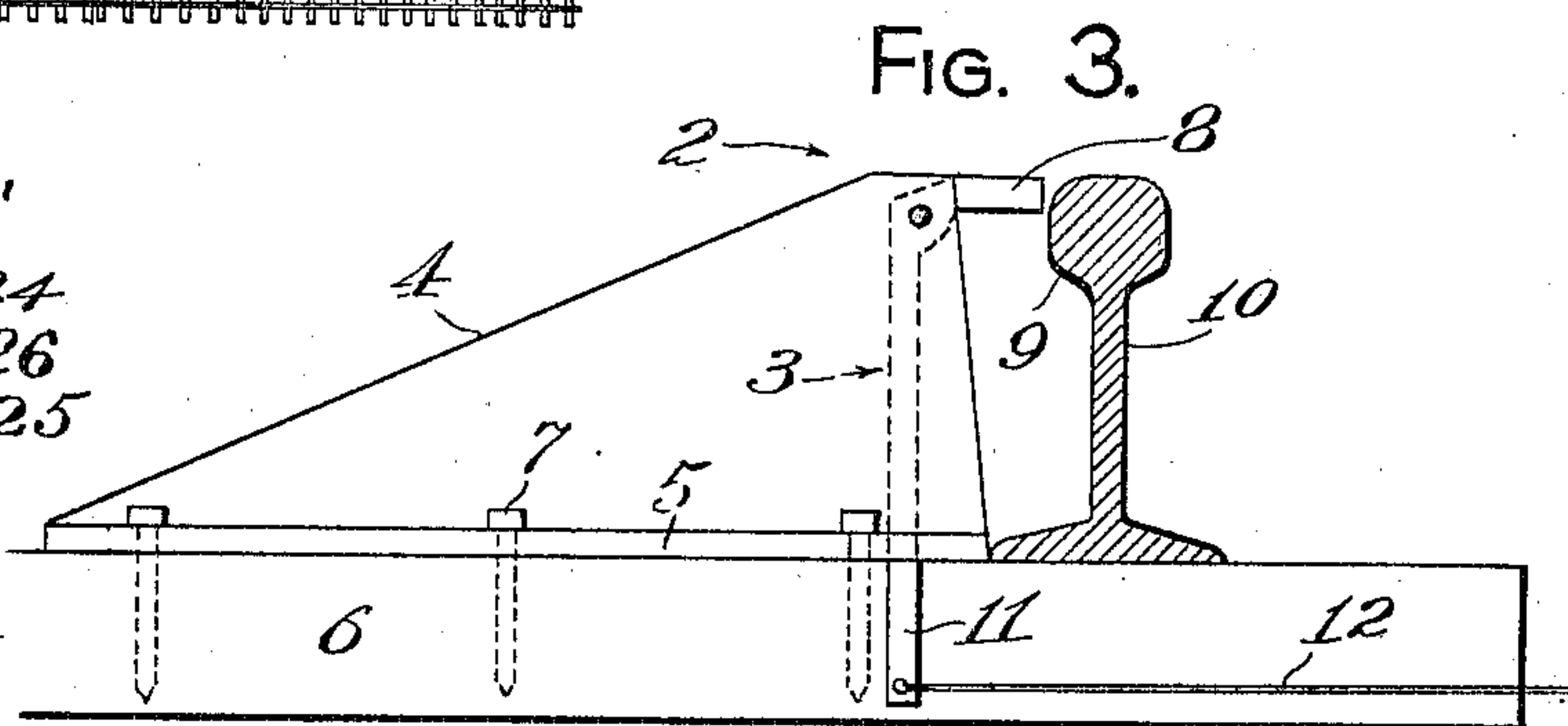
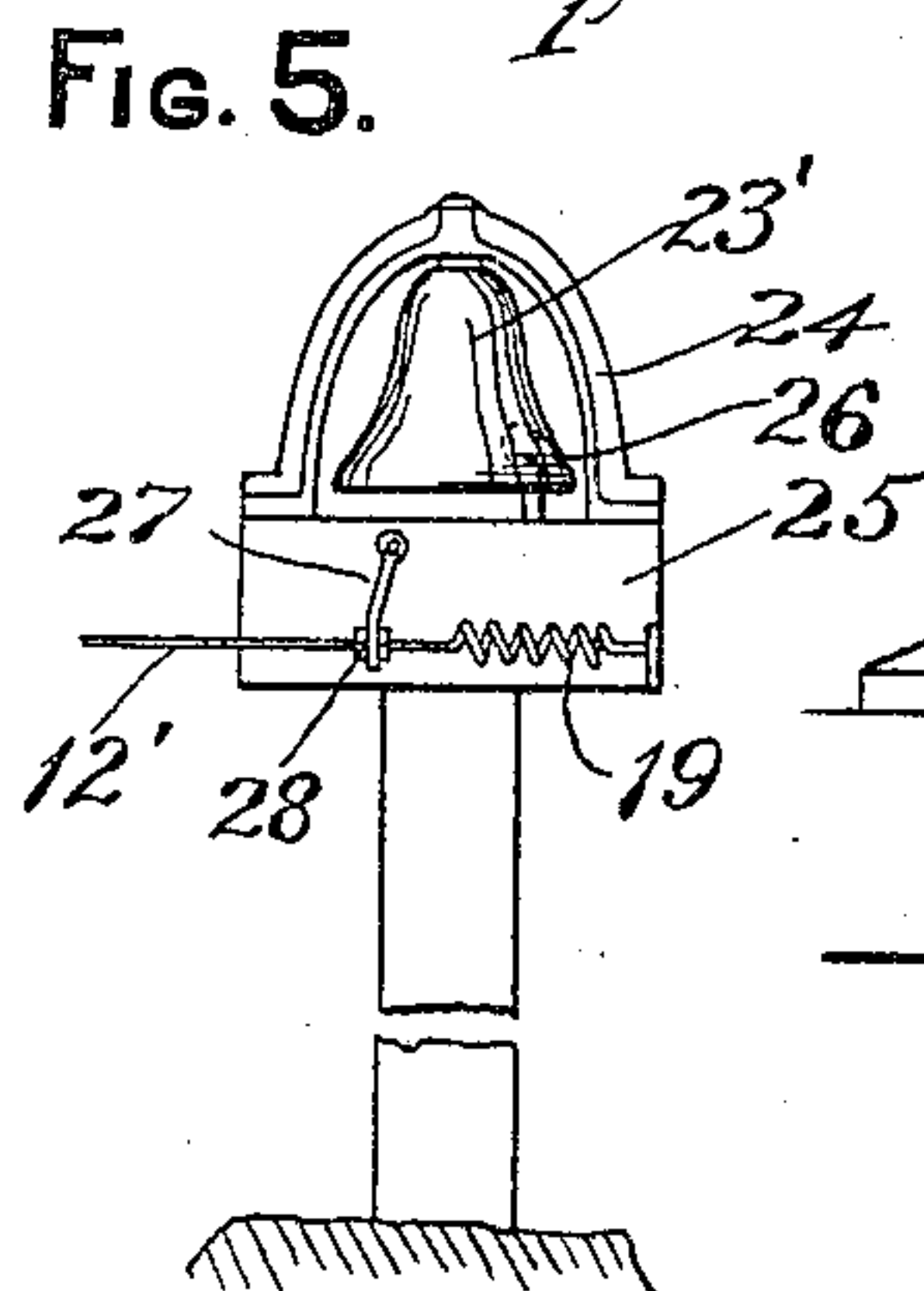
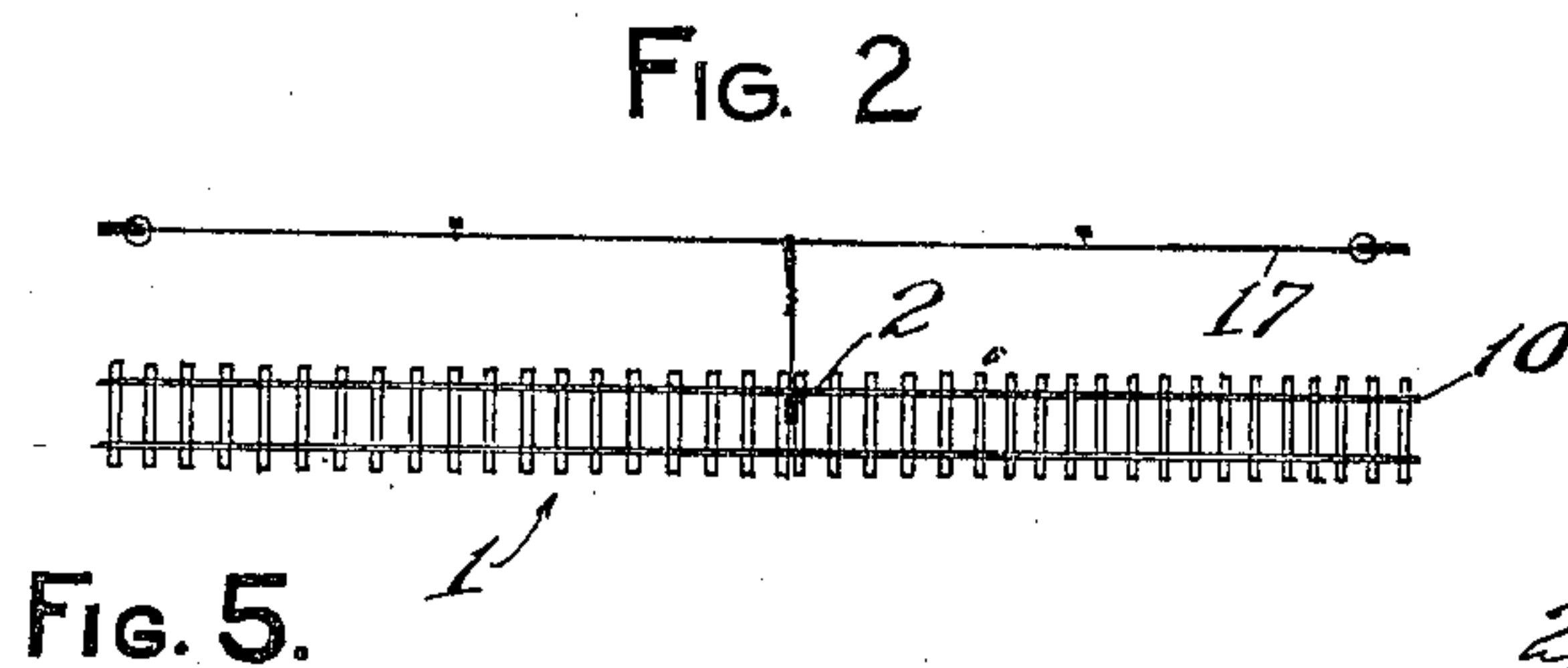
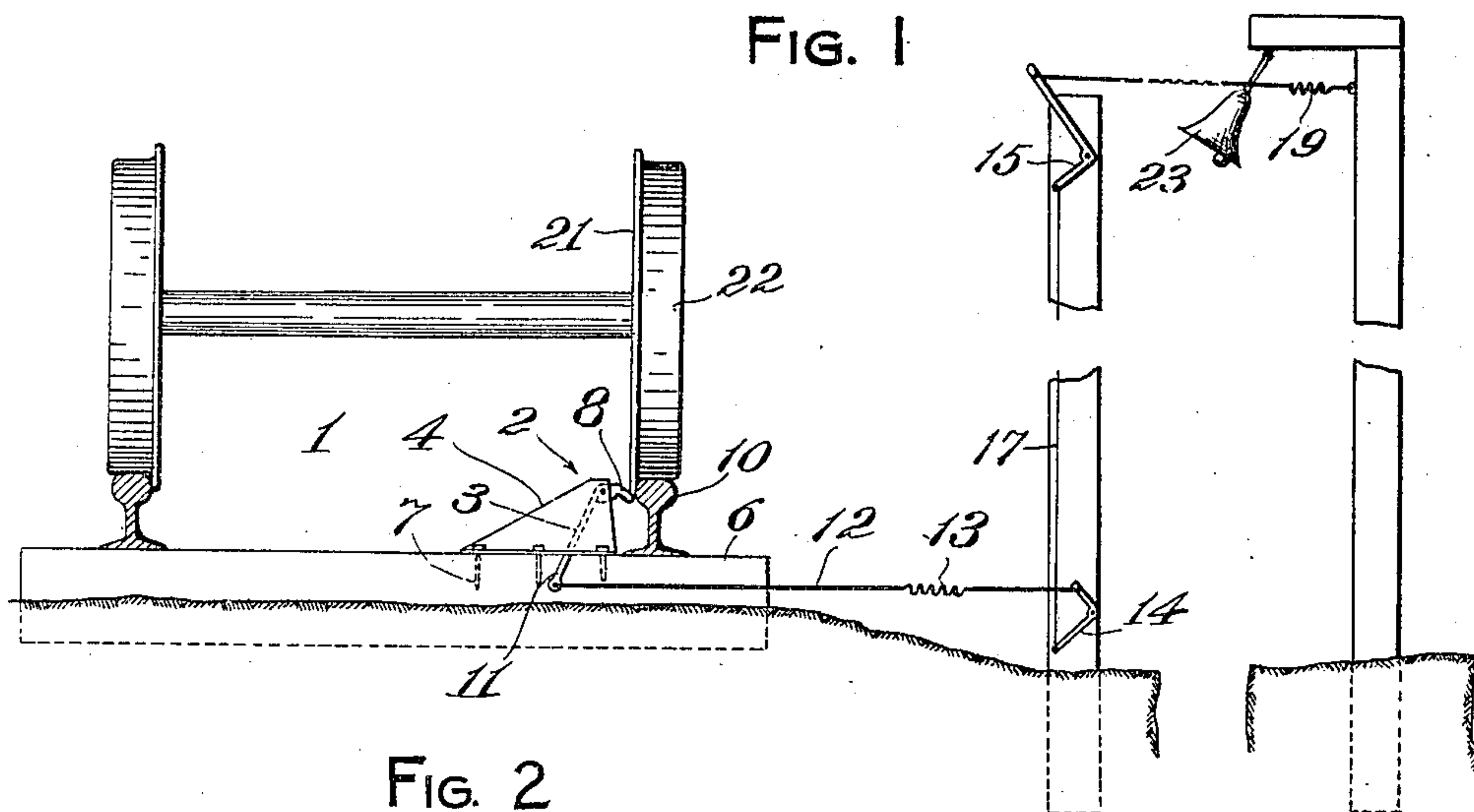


No. 837,643.

PATENTED DEC. 4, 1906.

A. W. PRESLEY.
RAILWAY CROSSING ALARM.
APPLICATION FILED DEC. 29, 1905.



Witnesses:-

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UNITED STATES PATENT OFFICE.

ANTHONY W. PRESLEY, OF LOS ANGELES, CALIFORNIA.

RAILWAY-CROSSING ALARM.

No 837,643.

Specification of Letters Patent.

Patented Dec. 4, 1906.

Application filed December 29, 1905. Serial No. 293,710.

To all whom it may concern:

Be it known that I, ANTHONY W. PRESLEY, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Railway-Crossing Alarm, of which the following is a specification.

The object of this invention is to provide improved means for giving warning of the approach of trains at railway-crossings or other points; and it consists of certain new and useful features of construction and combinations of parts hereinafter described, and pointed out in the claims.

Referring to the accompanying drawings, which illustrate the invention, Figure 1 is a view of a signal system embodying this invention, the trucks of a car being shown in operative position. The detached upper portion of this figure is turned at right angles to the operative position. Fig. 2 is a plan of such system. Fig. 3 is a detail of the actuating attachment. Fig. 4 is a plan of the actuating attachment. Fig. 5 is an elevation of a modified form of alarm.

1 designates a railroad-track, and 2 an actuating device, any number of which may be located along the track where required, the same comprising a lever or bell-crank 3, mounted in the bifurcated portion 3' of an inverted substantially U-shaped frame 4, having horizontal legs 5, secured to ties 6 by bolts 7. The frame 4 tapers throughout the greater portion of its length, and said frame constitutes a cover for and within which the lever or crank 3 swings. By reason of the peculiar structure of the frame 4 the lever is pivoted on the same plane with and contiguous to the tread of the rail, thereby necessitating only a short arm 8 and reducing the expense of manufacture, as well as increasing the efficiency of the device. One limb 8 of the bell-crank is mounted alongside the inner flange 9 of one of the railroad-rails 10, while the other vertical limb 11 of the bell-crank is connected with the signal through a medium comprising a resiliently-extensible connection (indicated by wire 12) having a spring-section 13, bell-cranks 14 15 16, and wires 17, which are respectively controlled by springs 19. The springs 13 19 normally hold the actuating bell-crank 3 with one limb 8 in position to be engaged by the flanges 21 of the truck-wheels 22.

The signal 23 may be mechanically or electrically operated. In practice each operat-

ing device may be connected with any number of signals. The signal 23 may be one or more bells erected at road-crossings.

When a train of cars (not shown) passes the point where the actuating device is located, the wheels of the train on the rail 10 will successively depress the limb 8 of the bell-crank and draw the connection to ring the bell or actuate any signal with which it may be connected. The springs return the parts to normal position between each impulse by the wheels.

It will be noted that I have shown a bent lever 3, having a laterally-extending arm 8, positioned to engage the flange of a passing car-wheel, and a downwardly-extending arm 11, swinging toward and from the rail, said lever being located at a point inside of one of the rails to swing toward and from said rail at substantially right angles thereto, allowing the means for actuating the alarm to extend under said rail. The power-transmitting connection 12 may be rendered elastic and extensible at 13 by any suitable means.

The lever 3 is desirably pivoted at a point within the rails and is in the form of a bell-crank having a short laterally-extending arm 8 terminating short of the rail and adapted to be engaged and depressed by the flange of a passing car-wheel and a vertical arm 11 extending downwardly to a point below the bottom of the rail on the same side thereof as arm 8. This form and arrangement of lever 3 when employed in combination with a connection having a horizontal portion extending to a point between the inner sides of the rails of the track makes it possible to avoid the wear and tear which would be caused by the use of a larger wheel-engaging lever or by a lever having an arm extending under the rail, as additional wear and danger of breaking is caused when a lever having a long arm is suddenly oscillated.

In devices of the class to which this invention pertains it is important to provide a construction in which the parts oscillated by the car-wheels may be made small and compact. I obtain this desirable end by the construction just described.

It will be seen that when the flange of the car-wheel depresses arm 8 it makes a rolling contact therewith, and therefore there is but little friction or wear upon the power-receiving portion of the apparatus.

In Fig. 5 I have shown a modified form of alarm. In said figure 23' designates a sta-

tionary bell mounted in an inverted substantially U-shaped frame 24, fixed to the top of a box 25, said box containing spring-actuated or weight-actuated mechanism (not shown) for operating a hammer or striker 26 to ring bell 23'. 27 designates a trigger for setting said mechanism into motion, said trigger being operated by connection 12'. 19' designates a spring for returning connection 12' and trigger 27 to normal position. 28 designates any suitable means for operatively connecting connections 12' and trigger 27.

The bell shown in Fig. 5 is constructed to give a number of short alarms after each winding, a single alarm being given during the approach of each train.

What I claim is—

1. In a device of the character described, the combination with a signal, of an inverted substantially U-shaped frame, a lever pivotally mounted upon said frame, and means connecting said lever to said signal.

2. In a device of the character described, the combination with a signal, of an inverted, substantially U-shaped frame, horizontal legs integral with said frame, a lever pivotally mounted within said frame, and means connecting said lever with said signal.

3. In a device of the character described, the combination with a signal, of an inverted, substantially U-shaped frame, said frame tapering throughout the greater portion of its length, legs extending from opposite sides of said frame, signal-actuating means carried by said frame, and means connecting said signal-actuating means to said signal.

4. In a device of the character described, the combination with a signal and ties, of a frame closed at its top and open at its bottom, said frame provided with oppositely-extending legs, each leg resting upon a tie, a lever pivotally mounted within said frame, and means connecting said lever to said signal.

5. In a device of the character described, the combination with a signal and ties, of a frame closed at its top and open at its bottom resting upon said ties, signal-actuating means carried by said frame, and means connecting said signal-actuating means to said signal.

6. In a device of the character described, the combination with a signal and a pair of ties, of an inverted, substantially U-shaped frame, said frame tapering throughout a portion of its length, horizontal legs integral

with the sides of said frame, each leg resting upon a tie, a bell-crank lever pivotally mounted within the top of said frame, said lever extending between said ties, and means connecting said lever to said signal.

7. In a device of the character described, the combination with a signal and a rail, of a frame, a lever provided with an arm, said lever pivotally mounted upon said frame in the same horizontal plane with the tread of said rail, the outer end of said arm terminating short of the tread, and means connecting said lever to said signal, said arm adapted to be depressed for actuating the signal.

8. In a device of the character described, the combination of a frame, a lever carried by said frame, a signal, a support, a bell-crank lever pivotally mounted upon said support near its base, a bell-crank lever pivotally mounted upon said support near its upper end, means connecting one of said bell-crank levers to said first-mentioned lever, means connecting the other bell-crank lever to said signal, and means connecting said bell-crank levers.

9. In a device of the character described, the combination of a frame, a lever pivotally mounted upon said frame, a box, an inverted substantially U-shaped frame secured to said box, a signal secured to said last-mentioned frame, an actuating mechanism supported upon said box and cooperating with said signal, a trigger carried by said box and connected to said signal-actuating mechanism, and means connecting said trigger to said lever.

10. In a device of the character described, the combination with a rail and ties, of a frame connecting said ties, a lever movably mounted upon said frame, said lever provided with an arm, the arm positioned contiguous to the tread of said rail, a support, a signal-supporting frame carried by said support, a signal carried by said last-mentioned frame, a signal-actuating mechanism carried by said support and cooperating with said signal, and means connecting said lever to said signal-actuating mechanism.

In testimony whereof I have hereunto set my hand, at Los Angeles, California, this 22d day of December, 1905.

ANTHONY W. PRESLEY.

In presence of—

JAMES R. TOWNSEND,
ALBERT H. MERRILL.