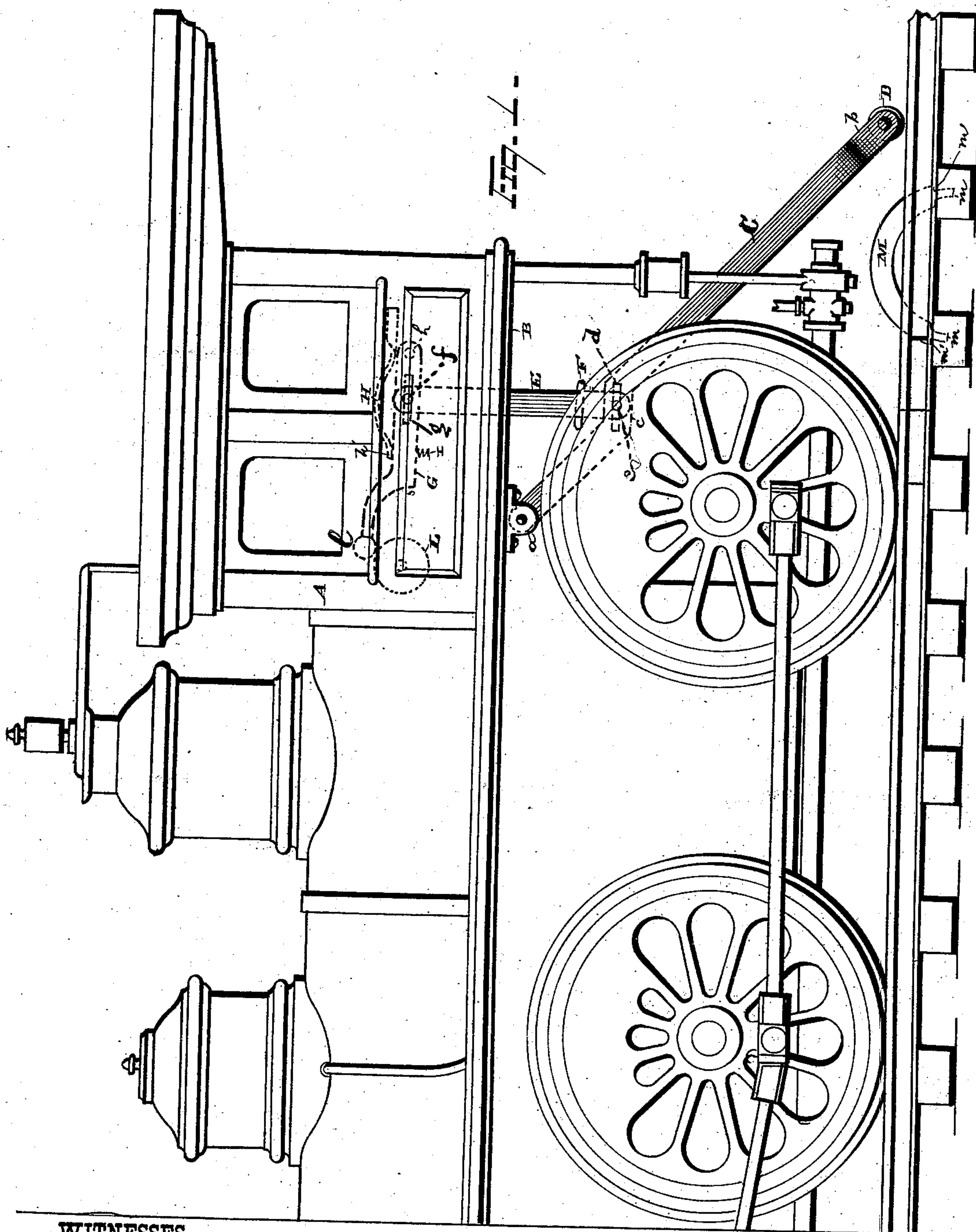


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Locomotive Signaling Attachment.

No. 227,936.

Patented May 25, 1880.



WITNESSES

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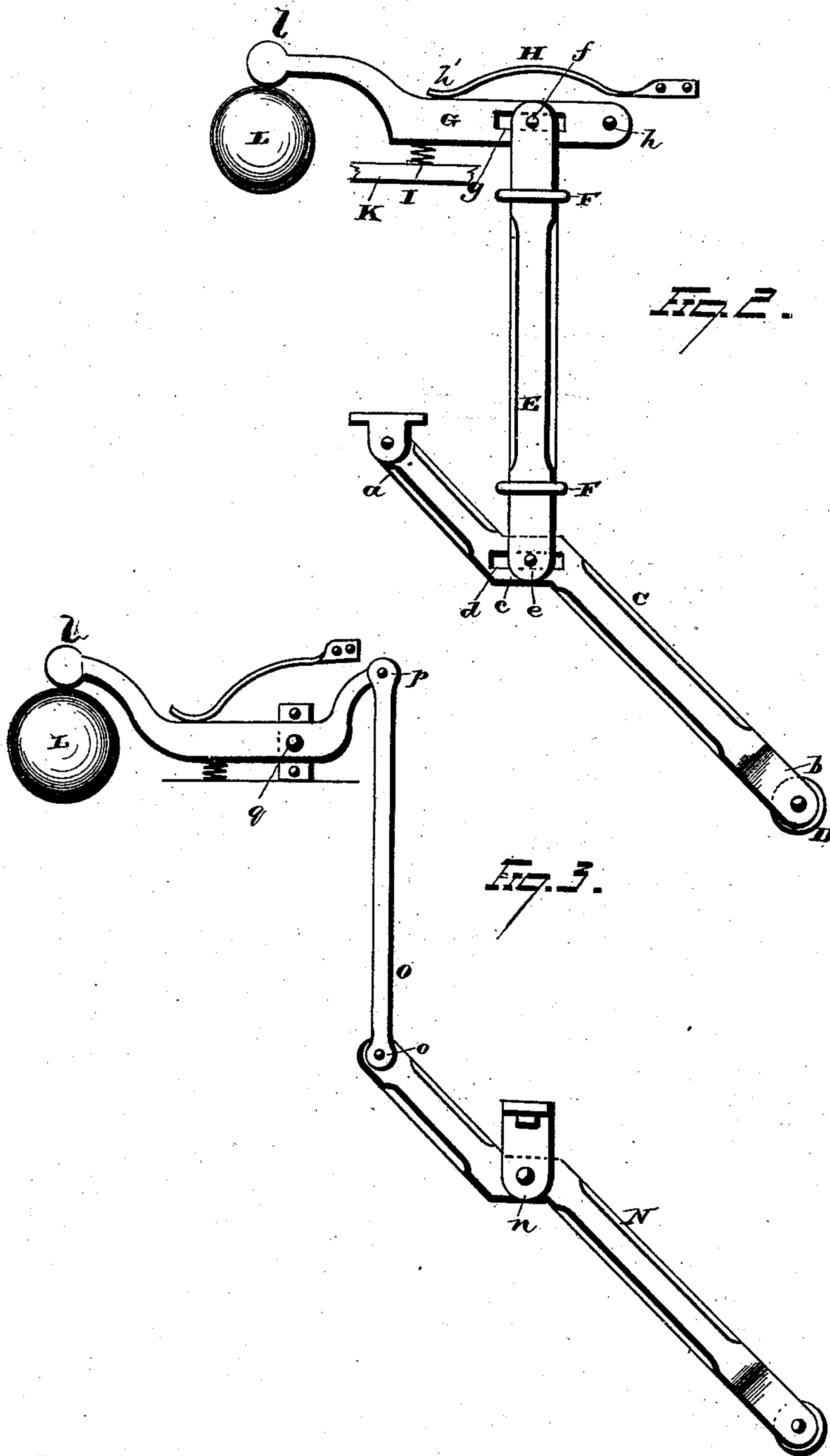
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By Seagott & Seagott.
ATTORNEYS

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UNITED STATES PATENT OFFICE.

FRANKLIN J. WENKER, OF CLYMAN, WISCONSIN.

LOCOMOTIVE SIGNALING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 227,936, dated May 25, 1880.

Application filed December 29, 1879.

To all whom it may concern:

Be it known that I, FRANKLIN J. WENKER, of Clyman, in the county of Dodge and State of Wisconsin, have invented certain new and useful Improvements in Signaling Attachments for Locomotives; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in signaling attachments for railroad-locomotives, the object being to provide a signaling device which shall be of small cost, of few parts, and readily applied for use to indicate, by one or more strokes of a bell in the cab of a locomotive-engine, any particular point on the road—as, for instance, a certain distance from a town or city or draw-bridge—where the train must be stopped; and to this end my invention consists in certain details in construction and combinations of parts, as will hereinafter be described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a locomotive-engine with my improvement applied thereto, and the signal-actuating device attached to the ties of the track. Fig. 2 is a detached view of the device. Fig. 3 is a modification.

A is the cab of a locomotive-engine, to the floor B of which, or at any other suitable place on the cab, is pivoted the end *a* of the actuating-lever C.

Lever C is formed with a bifurcated lower end, consisting of the arms *b*, between which is journaled the roller D, while at any desired point in the length of said lever is formed a horizontal portion, *c*, within which is located an elongated slot, *d*. The lower end of a vertical lift-rod, E, is mortised, and provided with a pin or bolt, *e*, which extends through the elongated slot *d*. The rod E is retained in its vertical position by means of the guide-ways F, and, owing to its peculiar connection with the lever C, may be readily raised by imparting a vertical movement to the lower end of the latter.

The upper end of lift-rod E, is mortised,

and provided with a pin or bolt, *f*, which extends through an elongated slot, *g*, formed in the bell-hammer G, the latter being pivoted at *h*. The free end *h'* of a spring, H, rests upon the upper side of hammer G, while a short spiral or other spring, I, is placed on any suitable support, K, (see Fig. 2,) placed below the hammer to support it in a yielding manner.

L is a bell located in close proximity to the free end *l* of the bell-hammer.

To the adjacent ties of the track, at any desired place, is secured the curved bar or plate M, the ends of which are sharpened, as at *m*, and provided with shoulders *m'*, to allow the bar to be readily driven into the ties, when it is retained in position, the shoulders serving to prevent it from being driven downward beyond a certain point, and thus insure a certainty and uniformity in the operation of the signal.

The actuating-bars may be secured in any desired numbers to the track to sound the bell any predetermined number of times, for the purpose of automatically indicating to the engineer the approach of the train to a station or stopping-place.

A single one of the actuating-bars may be secured at any desired distance from a certain station, and thus, when the locomotive reaches such point, the roller on the lower end of the actuating-lever C strikes the curved surface formed by the upper edge of the actuating or lift bar M, raises the same, and simultaneously lifts the lift-rod E and raises the bell-hammer against the downward force of its spring. As the roller on the lever C leaves the actuating-bar M the end of lever C drops by its gravity, and thus allows the hammer to strike the bell but a single blow. Other stations may be furnished with two or any number of the actuating bars or plates M, in order that the bell may be sounded any desired number of times in succession.

Fig. 3 is a construction embodying the same principle of operation. In this latter form of construction the actuating-lever N is pivoted at *n*, and the lift bar or rod O is pivoted to the upper end of the lever, as at *o*.

The upper end of the lift bar or rod is pivoted to the rear end of a hammer-lever, as at

p, said hammer-lever being centrally pivoted at *q*.

It will be observed that my improved signaling attachment is very simple in its construction, and may be applied to any locomotive at an insignificant cost.

I am aware that locomotives have been provided with a signaling attachment, consisting, essentially, of a vertically-reciprocating bar held in place within suitable guideways, the lower end of said bar having a roller journaled therein, which operates, in conjunction with curved abutments placed outside the rails, to raise said bar at any desired time, the upper end of the bar being connected by intermediate devices with a bell or whistle; but said form of signaling attachment is defective in operation, for the reason that the actuating-bar is subjected to severe lateral strain when the locomotive is running at high speed, owing to the fact that it must be moved at right angles to the movement of the locomotive, and hence undue strain is imparted to the bar, its guides, and roller-journals, whereby the devices are liable to become disarranged and inoperative.

I am also aware that cars and locomotives have been provided with a short swinging lever, provided with rollers at opposite ends, the lower roller operating, in connection with a curved or inclined abutment, to depress the upper roller and force the same in contact with the arm of a rock-shaft which transmits motion to devices for operating a signal, and hence I would have it understood that I make no claim to such construction and combination of parts.

In my improved signaling attachment the signal is sounded by the movement of a lever which is pivoted to the cab-floor, while its long arm projects rearwardly, and is provided with a roller which is raised by a curved bar secured to the ties of the track, whereby a swinging movement is imparted to the lever, which movement is transmitted to the bell by means of a connecting-rod pivoted to the actuating-lever.

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

The combination; with a curved bar, *M*, provided with sharpened ends and shoulders *m'*, said bar adapted to be driven into the ties of a track, of a locomotive signaling attachment consisting of the actuating-lever *C*, pivoted to the cab at *a*, and provided at its lower end with roller *D*, the lift-rod *E*, provided with a pin, *e*, engaging in the elongated slot *d* in lever *C*, and bell-hammers *G*, provided with elongated slot *g*, in which engages a pin, *f*, attached to the upper end of rod *E*, and springs *H* and *I*, engaging with the upper and lower sides of the bell-hammer, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of December, 1879.

FRANKLIN J. WENKER.

Witnesses:

CHARLES END,
JOSEPHINE END.