

A. B. SNYDER.
RAILWAY SIGNAL.

Patented Feb. 1, 1887.

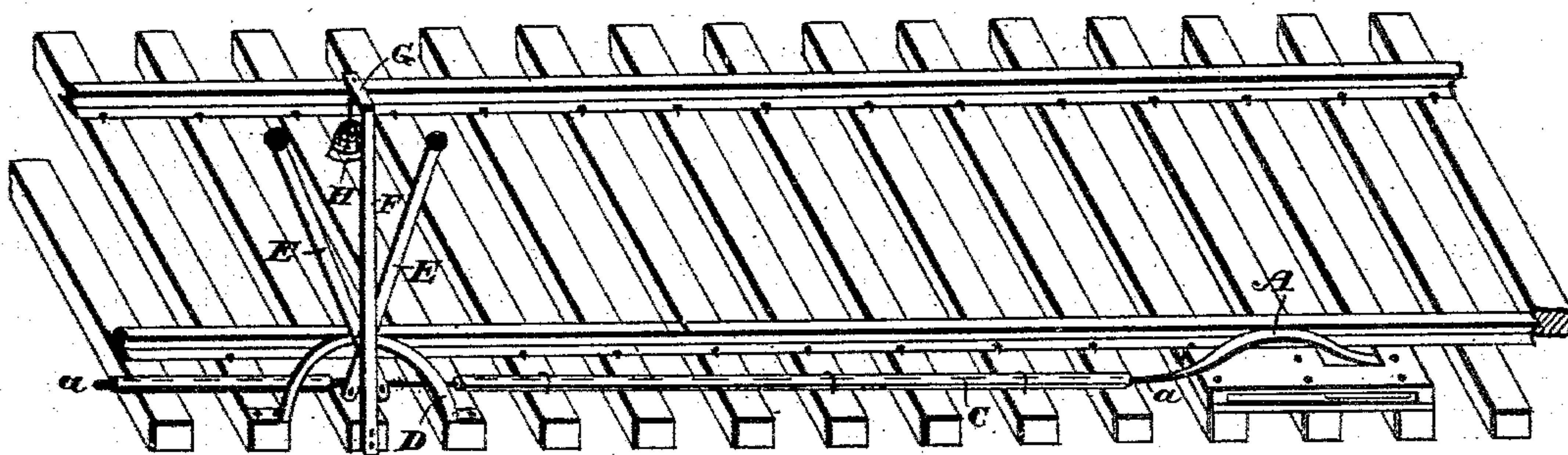


Fig. 1.



Fig. 2.

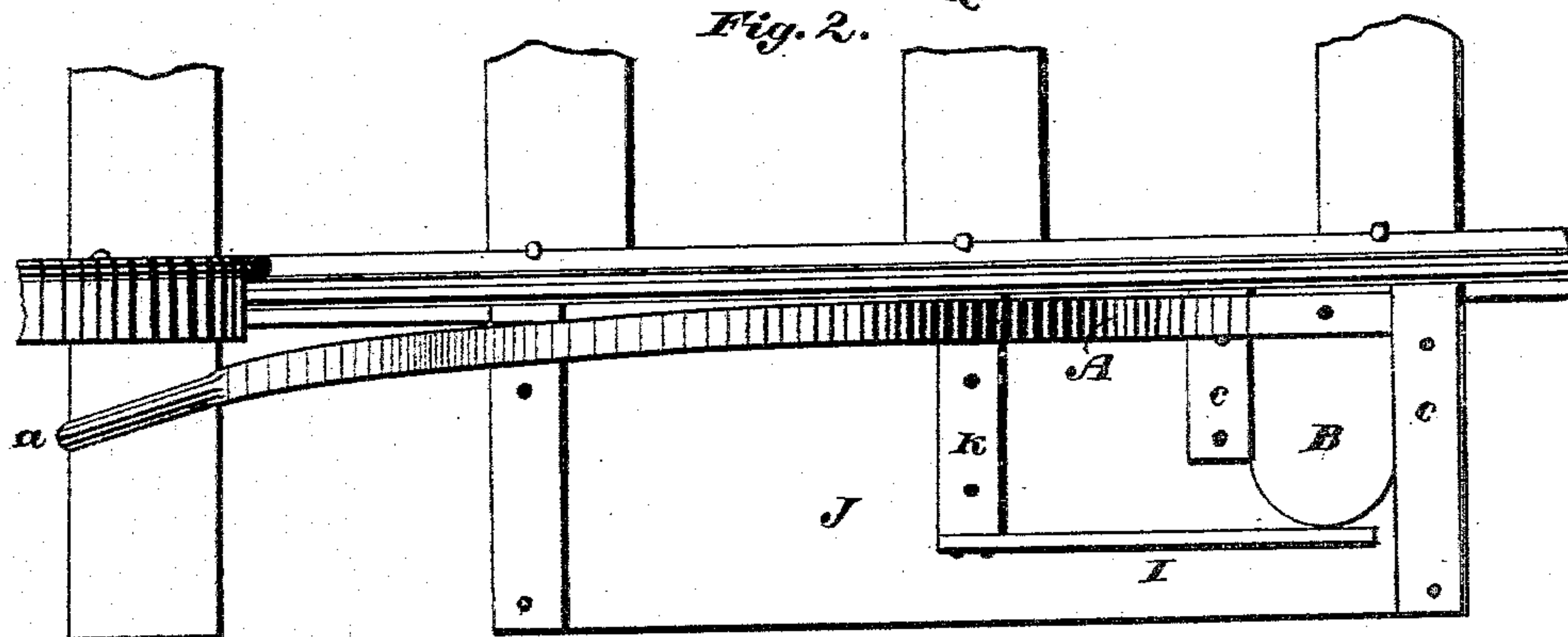


Fig. 3.

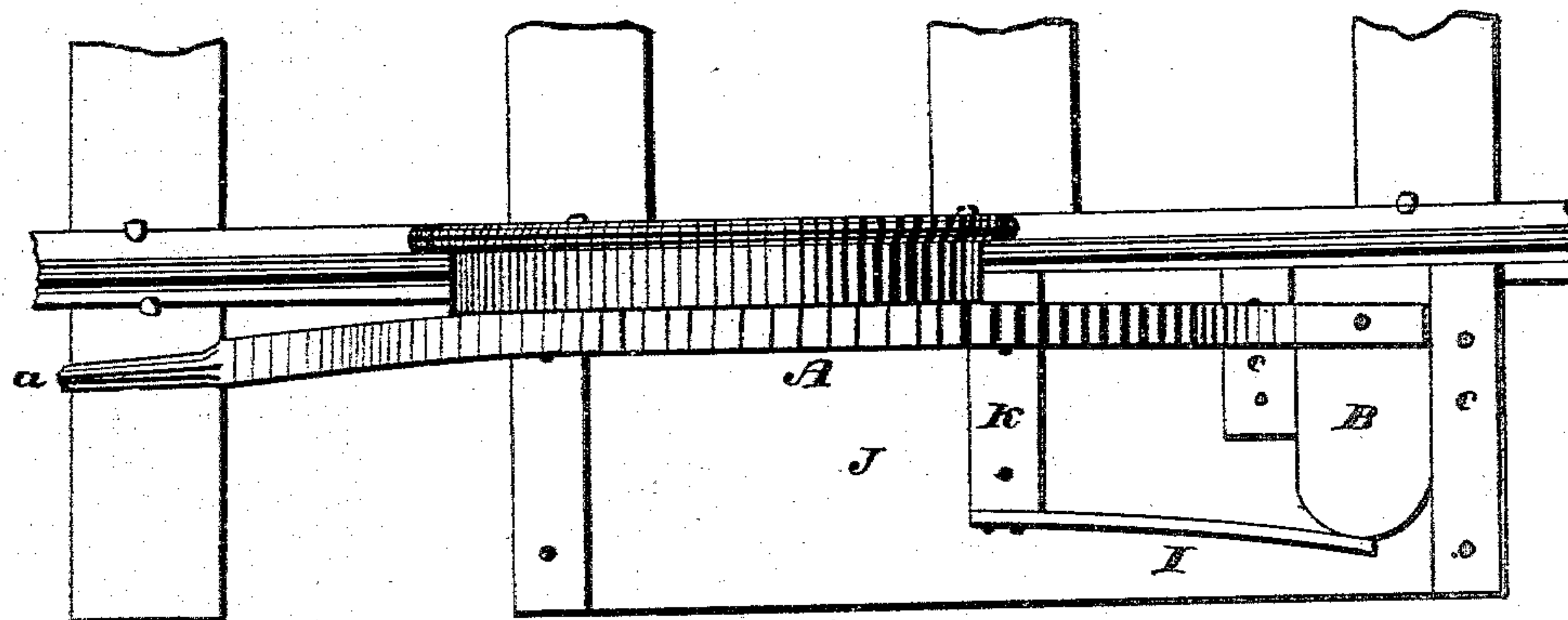


Fig. 4.

WITNESSES

Harry T. Reed
Harry Grease

INVENTOR

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UNITED STATES PATENT OFFICE.

ABRAHAM B. SNYDER, OF LOUISVILLE, OHIO.

RAILWAY-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 356,798, dated February 1, 1887.

Application filed August 28, 1886. Serial No. 212,054. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM B. SNYDER, a citizen of the United States, residing at Louisville, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Railway-Signals; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon, in which—

Figure 1 is a perspective view. Fig. 2 is a detached view of the bar or rod and a portion of the pipe. Fig. 3 is a top view showing the operating-spring in its normal position. Fig. 4 is a top view showing the operating-spring forced to the side of the railway-rail by means of a car-wheel.

The present invention has relation to that class of railway-signals designed and calculated to signal the approach of a train of cars at a street-crossing; and its nature consists in the different parts and combination of parts hereinafter described, and particularly pointed out in the claim.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A represents the operating-spring, which may be substantially of the form shown in the drawings, and is placed by the side of the railway-rail, as shown. One end of said operating-spring is attached to the sliding block B, substantially as shown, the opposite end being attached to the rod or bar *a*.

The top of the spring A extends a short distance above the top of the railway-rail, so that as the wheels of a train of cars pass over said operating-spring it will be forced down to a level with the top of the railway-rail, and as soon as a wheel has passed said operating-spring it will assume its normal position, thereby operating the signal, as hereinafter described.

To the free end of the operating-spring is securely attached the rod or bar *a*. This rod or bar may be formed in sections of any desired and convenient length, and said sections securely held together by means of the screw-threaded thimbles *b*, as shown in the draw-

ings. For the purpose of holding the rod or bar *a* in proper position it is placed in the pipe C, as shown. It will be seen that by placing the rod or bar *a* within the pipe C the movements of said rod or bar will not be interfered with by snow or ice.

At the place where it is desired to locate a signal the segment or support D is attached to the ties, substantially as shown in the drawings, and to the segment or support D are pivoted the arms E, substantially as shown. To the bottom or lower ends of the arms E are attached the rods or bars *a*. To the outer side of the segment or support D is located the post or standard F, to the top or upper end of which is attached the arm G, to which arm is attached the signal-bell H, said signal-bell being so adjusted that it will be between the upper ends of the arms E.

It will be seen that as the arms E are vibrated by means of the operating-spring A and the rods or bars *a* they will strike against the bell H, and thereby indicate the approach of a train.

For the purpose of preventing the train from operating the signal as it is leaving said signal, I place the end of the operating-spring A toward the signal a short distance away from the railway-rail, as shown in the drawings, so that as the wheels of a train pass the operating-spring A they will force the spring away from the railway-rail, and as soon as each wheel has fully passed said spring it will be forced into its normal position by means of the spring I.

To hold in proper position the operating-spring A and the sliding block B, the metal plate J is securely attached to the ties at the side of the railway-rail, as shown in the drawings, said plate being provided with the ribs or bars *c c*, which are for the purpose of holding the sliding block B in proper position, and are so arranged that the block B will slide away from the rail as a train of cars passes the operating-spring going away from the signal proper.

The spring I may be substantially of the form shown in the drawings, and is securely attached at one end to the block K, or its equivalent, the opposite end resting and pressing on the sliding block B, as shown in the drawings.

It will be understood that an operating-spring and its different parts is to be placed on each side of the street where it is desired to locate a signal, so as to indicate the approach of a train in either direction.

It will be seen that by my peculiar arrangement my signal will take the place of a watchman in cities, and can also be placed at all street-crossings at very little expense, and will at all times indicate the approach of a train of cars. It will also be seen that by the ringing of the signal-bell drop-gates can be dispensed with, as the operating-spring can be so adjusted that the signal-bell will continue to ring until the train arrives at the street-crossing. In cities the operating-spring A is designed to be located a certain distance from the street (for example, say forty yards from the center of the street,) so that the first sound of the bell

will indicate the exact distance the train is from the street.

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

The combination, with the spring A, the pivoted arms E E, and the rod *a*, connecting said spring and pivoted arms, of the standard F, having an arm, G, and the bell H, suspended from said arm G in the path of the pivoted arms E E, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ABRAHAM B. SNYDER.

Witnesses:

ROWLAND C. BURDICK,
FRED. W. BOND.