J. E. ROSS.

AUTOMATIC RAILROAD SIGNALS.

No. 181,012. Patented Aug. 15, 1876.

Fig. 1.

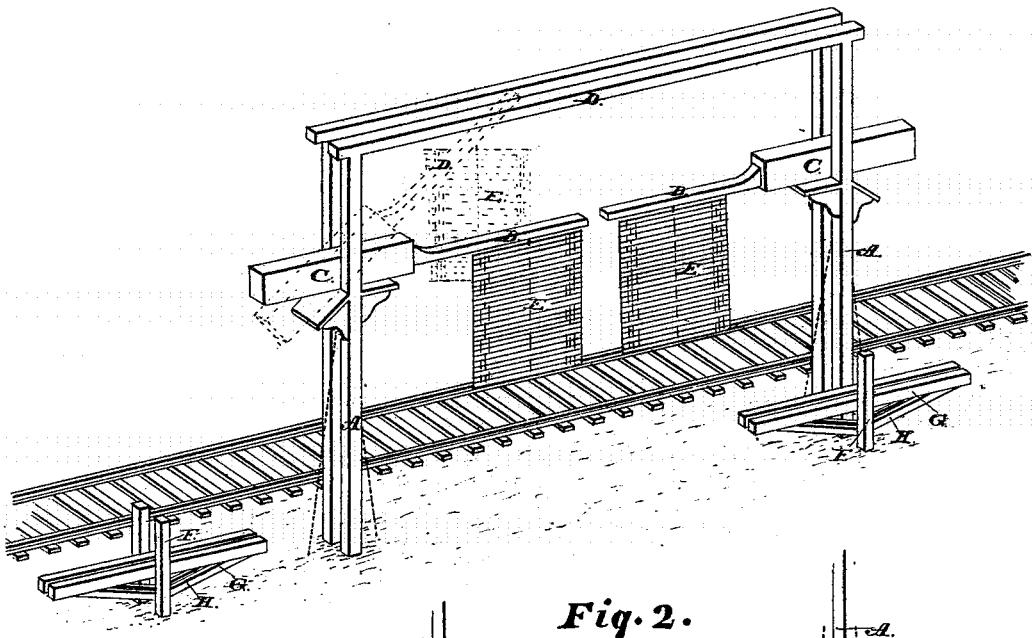


Fig. 2.

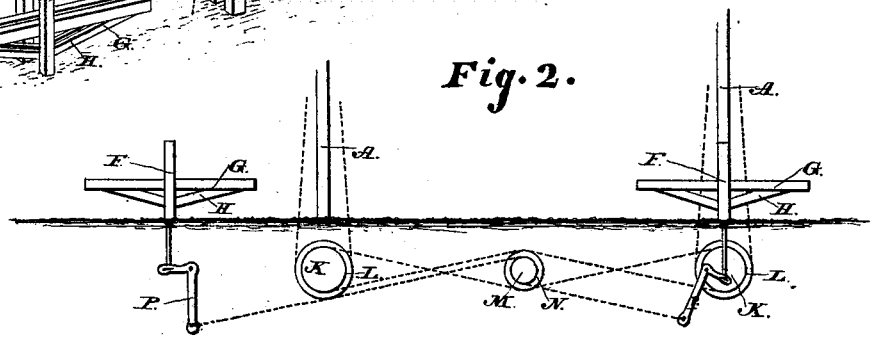
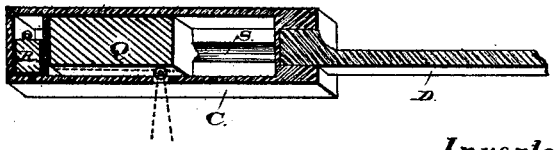


Fig. 3.



Witnesses;

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UNITED STATES PATENT OFFICE.

JOHN E. ROSS, OF PAWTUCKET, RHODE ISLAND.

IMPROVEMENT IN AUTOMATIC RAILROAD-SIGNALS.

Specification forming part of Letters Patent No. **181,012**, dated August 15, 1876; application filed March 13, 1876.

To all whom it may concern:

Be it known that I, JOHN E. ROSS, of Pawtucket, in the State of Rhode Island, have invented a new and useful Automatic Railroad Watchman and Signal; and I do hereby declare that the following specification, taken in connection with the drawing making a part of the same, is a full, clear, and exact description thereof.

Figure 1 is a view, in perspective, of my invention. Fig. 2 shows the mechanism for operating weight; Fig. 3, section showing inside of weight-case.

The object of my invention is to provide a means for signaling the approach of trains at railroad-crossings and closing the crossings, which may be easily and quickly operated; and consists in the mechanism hereinafter described.

A B is a suitable frame, erected over the crossing upon either side of the railroad-track; and consists of parallel upright posts, surmounted by parallel horizontal cross-pieces, as shown in Fig. 1. Between each pair of upright posts is a case, C, resting upon a stationary fulcrum, and having an arm or bar, D, extending inward nearly to the center, from which is suspended a flag, E, or other device best adapted to attract attention. The case C contains a stationary weight, R, which counterbalances the bar D, and a movable weight, Q, sliding horizontally in a groove, S. The movable weights Q are connected by chains to the pulleys L beneath the ground, and the pulleys L are attached to pulleys K, moving upon the same center. Motion imparted to one set of pulleys, M N, is reversed upon the other through the intermediate pulleys L K, so that the weights Q will always move from or toward each other. The pulleys M N are operated by the levers P, which, in turn, are operated by a pulley upon the engine, which strikes and raises the spring H, and, consequently, the lever P attached thereto.

Having thus set forth the essential features of my invention, I will now proceed to describe its operation, commencing with the parts in the position shown by the dotted lines, Fig. 1. Upon the approach of the train of cars, the spring-board G and spring H being located at a convenient distance from the crossing, the pulley upon the engine raises the spring H, which raises the lever P, and, through the arrangement of pulley and chains before described, the weights Q are moved forward toward each other until they pass the center of the case C, when the bars D fall into the position shown in Fig. 1, and may be readily seen by any one approaching. After the train has passed and the engine reaches a similar spring-board, G, and spring H, the pulley upon the engine strikes and raises up the latter in like manner, which moves the levers P, and carries the weights Q outward and past the center of the case C, which causes the bars D to be thrown back or up into their former position, as shown by dotted lines in Fig. 1. The weight Q, instead of running in a straight line, may be caused to change its position by running around a circle.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The sliding weight Q and the case C, combined and operating together in the manner and for the purposes specified.

2. The combination of the spring-board G and H and levers P, and the pulleys N M L K, the whole arranged and operating together for the purpose of communicating motion to the weight Q.

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