

J. W. HAWLEY.
RAILROAD-SIGNAL.

No. 175,703.

Patented April 4, 1876.

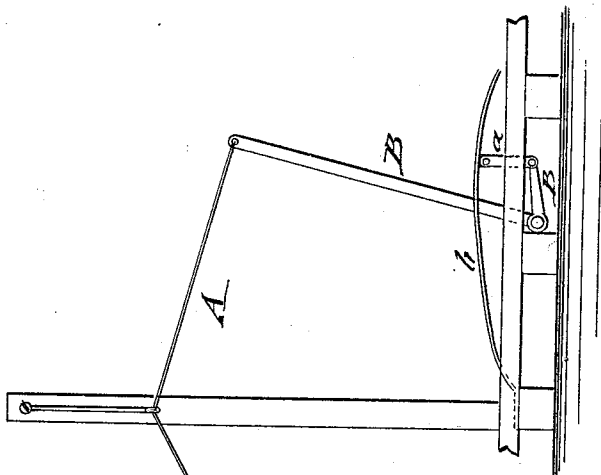


Fig: 1.

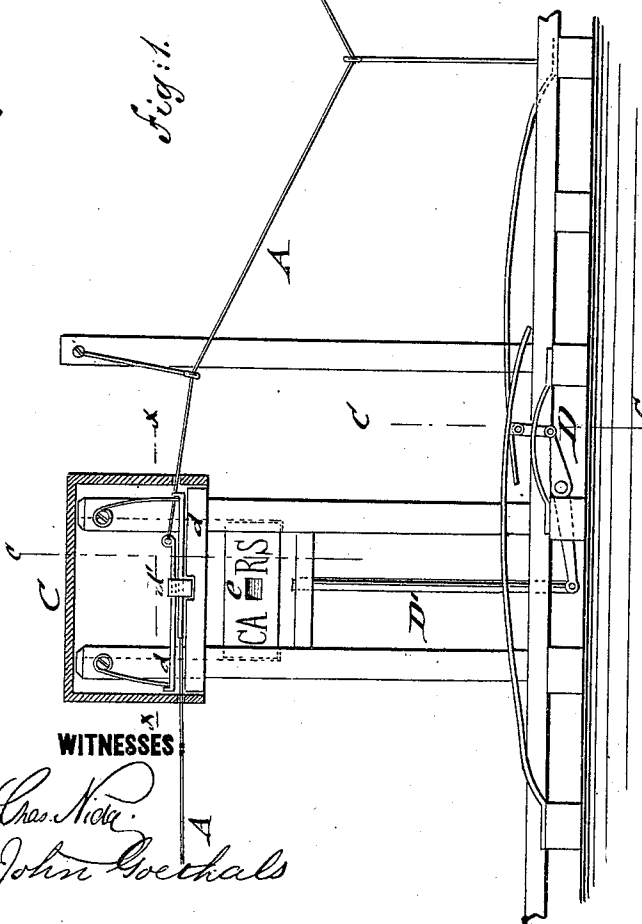


Fig: 2.

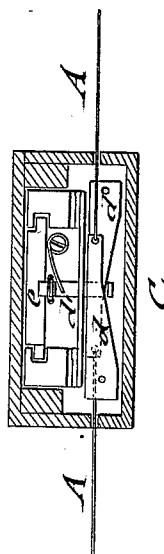


Fig: 3.

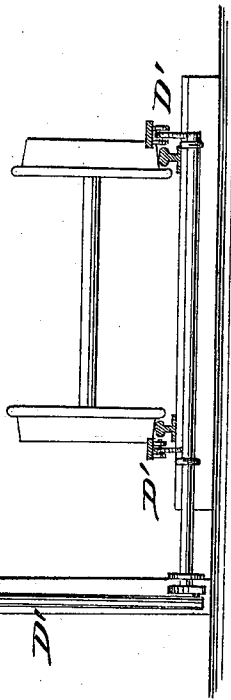


Fig: 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN W. HAWLEY, OF WARSAW, NEW YORK.

IMPROVEMENT IN RAILROAD-SIGNALS.

Specification forming part of Letters Patent No. **175,703**, dated April 4, 1876; application filed February 28, 1876.

To all whom it may concern:

Be it known that I, JOHN W. HAWLEY, of Warsaw, in the county of Wyoming and State of New York, have invented a new and Improved Railroad-Signal, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation of my improved signaling device for railroad-crossings; Fig. 2, a vertical transverse section of the same on line *c c*, Fig. 1; and Fig. 3, a horizontal section of the signal-dropping mechanism on line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of my invention is to arrange, at railway-crossings, signaling devices that are operated by the engine, giving unmistakable signals and signs of the approach of the train before the same arrives at the crossing, and changing signs when passing the crossing.

The invention consists of a wire connection extending from the signal-box at the crossing to some distance from the same, to be operated by the locomotive depressing a spring-acted crank-rod and releasing the signal.

In the drawing, A represents the signal-operating wire, that is suspended in suitable manner on pulleys or otherwise, and carried to some distance from the crossing of the railroad-track with the street or highway, in each direction from the crossing. The connecting-wires are, at their ends, applied to a swinging crank-rod, B, that is operated by a pivoted link, *a*, and inclined top band, *b*, and by a suitable pulley, lever, or other device from the locomotive pressing thereon. The depression of the band by the locomotive pulls the wire at the moment when the locomotive arrives at that part of the track.

The depressing mechanism of the signaling device at the other side of the crossing is pref-

erably placed at that side of the track opposite to the one on which the first mechanism is placed, so that one pulley-lever or equivalent device of the locomotive will serve for operating the signal at the crossing in whatever direction the locomotive approaches.

The wires A are attached to sliding and spring-acted wedge-plates *d*, placed inside of a box or inclosing-frame, C, arranged on supports at the crossing. The sliding wedge-plates release a spring-bolt, *d'*, and drop a vertically-sliding signal-plate or an arm, *e*, with flag or signal-light attached, so that the signal of the approaching train is given at the crossing when the train arrives at the point where the releasing mechanism is located.

When the train arrives at the crossing, the locomotive comes in contact with a similar depressing mechanism, D, that raises a vertically-sliding rod, D', guided between the supports of the box C. The upward motion of the rod D' carries the signal-plate or arm back into the box out of sight, to be there locked again by the spring-bolt, the train accomplishing thus the dropping and withdrawing of the signal by mechanical means without requiring a flagman or other attendant, which may be of advantage at street and other crossings, as the approach of trains is indicated in reliable manner at day and night.

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

The combination of band *b*, link *a*, crank B, and wire A, with the sliding spring wedge-plates *d*, spring-bolt *d'*, and the signal arm *e*, substantially as and for the purpose specified.

JOHN WALDO HAWLEY.

Witnesses:

S. HAWLEY,

W. W. HAWLEY.