J. I. CONKLIN, Jr.

Circuit-Closer for Railway-Signals.

No. 198,572. Patented Dec. 25, 1877.

Fig. 1.

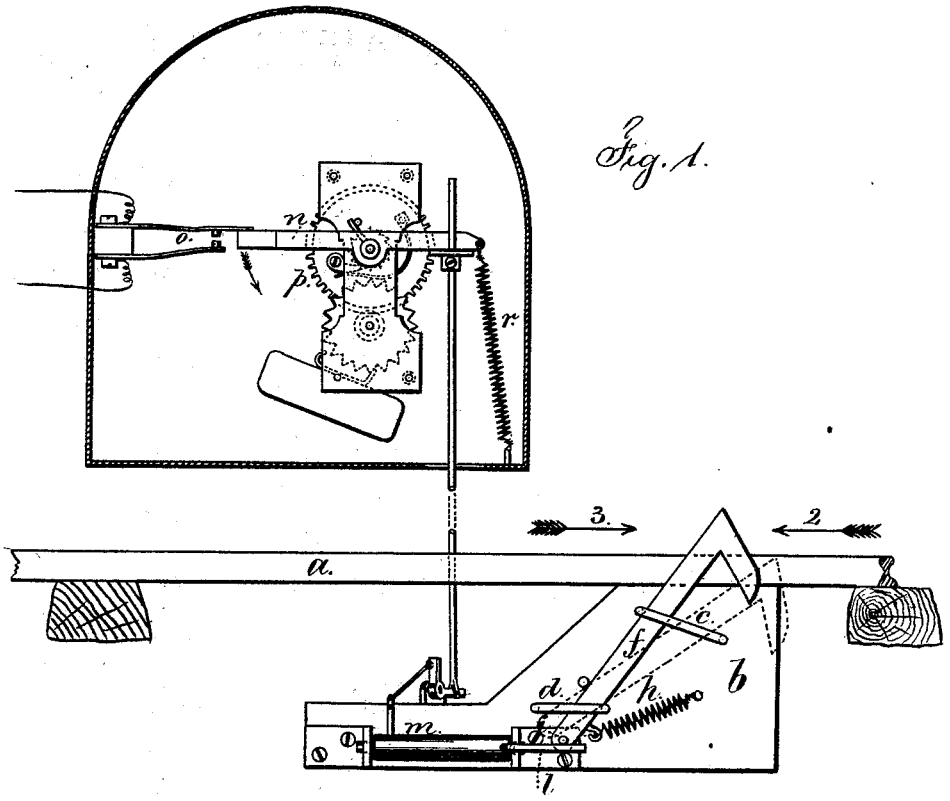
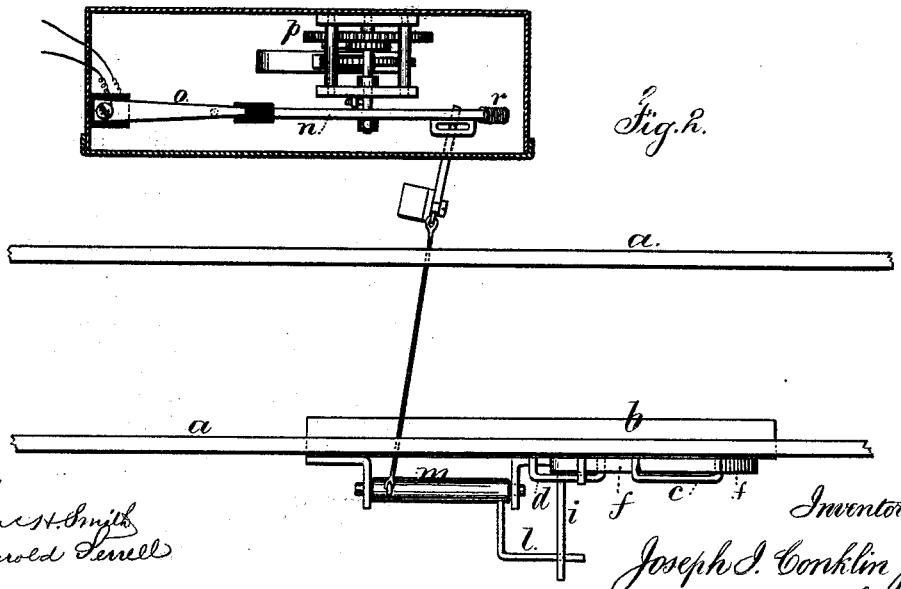


Fig. 2.



Witnesses

Chas. H. Smith

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UNITED STATES PATENT OFFICE.

JOSEPH I. CONKLIN, JR., OF NEW YORK, ASSIGNOR TO HIMSELF AND CHARLES A. DRESSER, OF BROOKLYN, N. Y.

IMPROVEMENT IN CIRCUIT-CLOSERS FOR RAILWAY-SIGNALS.

Specification forming part of Letters Patent No. **198,572**, dated December 25, 1877; application filed May 23, 1877.

To all whom it may concern:

Be it known that I, JOSEPH I. CONKLIN, Jr., of the city and State of New York, have invented an Improvement in Circuit-Closers for Railway-Signals, of which the following is a specification:

This circuit-closer is intended for a single line of railway, in which the trains pass in two directions, and it is made to operate when the train is moving one way, and not to give a signal or operate when a train is moving the other way.

In the drawings, Figure 1 is an elevation of the mechanism made use of for operating the circuit-closer, and Fig. 2 is a plan of the same.

The track *a* is provided with a bearing-block, *b*, beneath the rail, and upon this block *b* there are two guide-slides, *c* and *d*, through which passes the slide-lever *f*, that is formed at the upper end with a V or knife edge, and at the lower end it operates the circuit-closer. This lever *f* is drawn upwardly by the spring *h*, but it is kept in an inclined position by the guide-slides *c d*.

When a wheel is approaching the upper end of the lever *f* from the direction indicated by the arrow 2, the wheel comes into contact with the upper end of said lever *f*, and depresses it by sliding it bodily endwise within the guide-slides *c d*, and in so doing operates the railway-signal, as hereinafter described; but the wheel of a car coming in the direction indicated by the arrow 3 does not give any end motion to *f*, and does not give any signal, because the lever *f* only swings upon the end of the slide *d* as a fulcrum, and moves in the slide *c* into the position shown by dotted lines in Fig. 1; hence the movement of the lower end of *f* is so small as not to influence the circuit-closer, and such movement of the lower end is upwardly and away from the circuit-closing device.

It will be apparent that the lower end of the lever-slide *f* may be made to operate any suitable or desired circuit-closer.

I have shown an arm, *i*, projecting from the lower end of *f*, that acts against the arm *l* of the bent lever *m*, and this lever *m* is shown as connected to the circuit-closing mechanism, in which there is a lever, *n*, and contact-spring *o*, the lever *n* being upon a shaft with a ratchet-wheel, attached by a pawl to a gear-wheel, *p*, that revolves an escapement-wheel, so that the lever *n* will not close suddenly by the action of the spring *r*, but will be detained by the escapement-wheel and rocking escapement, and kept open thereby while the train is passing, the lever *n* being moved partially by each wheel as it passes for the ratchet to take up another tooth.

I claim as my invention—

In a railway-signal apparatus, the combination, with the circuit-breaking mechanism, of a lever, *f*, guide-slides *c d*, and spring *h*, arranged, substantially as specified, so that the lever *f* receives an end movement by the wheels passing in one direction, and swings and yields to the wheels as they pass in the opposite direction, substantially as set forth.

Signed by me this 11th day of May, A. D. 1877.

J. I. CONKLIN, JR.

Witnesses:

THEO. HUMBERT,

ROBT. A. STURGEON.