(No Model.)

J. I. CONKLIN, Jr.

Track Circuit Closer.

No. 234,657. **Patented Nov. 23, 1880.**

Fig. 2.

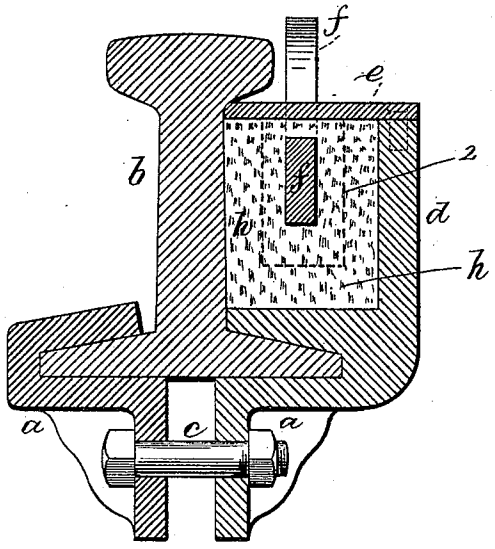
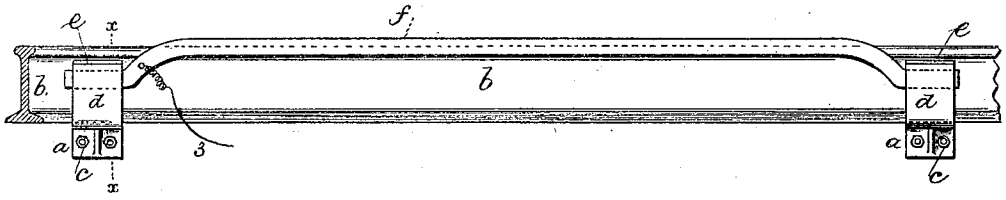


Fig. 1.



Witnesses:

Chas. H. Smith
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Inventor:

Joseph I. Conklin Jr.
per Lemuel W. Serrell,
atty

UNITED STATES PATENT OFFICE.

JOSEPH I. CONKLIN, JR., OF NEW YORK, N. Y.

TRACK CIRCUIT-CLOSER.

SPECIFICATION forming part of Letters Patent No. 234,657, dated November 23, 1880.

Application filed July 21, 1880. (No model.)

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 Track Circuit-Closers, of which the following is a specification.

In Letters Patent No. 222,383, granted to me, a track circuit-closer is shown and described, consisting of a lever pivoted to the rail and operated by the wheels of a passing train to bring a spring-block into contact with stationary studs and close the electric circuit to a railroad signaling instrument.

My present invention is made to dispense with said contact blocks and studs, and to provide a device that is simple in construction and not liable to derangement.

I make use of a metal bar that is supported at its ends in rubber or other blocks that insulate it from the rail, and these insulating-blocks are secured in clips attached to the rail. The yielding-bar is parallel with the rail, and its top is slightly above the tread of the rail, so that the car-wheels will run upon said bar and make metallic connection therewith and close the electric circuit to the signaling-instrument.

In the drawings, Figure 1 is an elevation of the track circuit-closer, and Fig. 2 is a section of the same at the line *x x*, in larger size.

The clips *a a* are secured to the rail *b* by the bolts *c*, and each clip is formed with the box portion *d* to receive the rubber or other insulating block *h*. The insulating-block is kept down within the box by the cap-plate *e*.

The circuit-closing bar *f* is preferably of steel, and of a length to allow two wheels of the train to be on it at one time, and the ends of this bar pass through the blocks *h*, and they support said bar and also insulate it from the rail *b*.

Slots are made in the ends of the box *d*, as indicated by dotted lines at 2, so that the bar may move vertically, and these slots should be wider than the bar *f*, so that said bar cannot come in contact with the box *d*.

The circuit-closing bar *f* is parallel with the rail *b* and contiguous thereto, and its top surface rises above the tread of the rail, as shown in Fig. 2. When the wheels of a passing train run upon the top of the bar a metallic connection is made of the wheel and bar that closes the electric circuit, the wire 3 from the signaling-instrument being connected with the bar, and the current passing by said wire to the bar, wheel, rail, and ground.

If the insulating-blocks *h* are of rubber or other elastic material they allow the bar *f* to yield as the weight of the train comes upon said bar, but the bar is kept up to the wheel or wheels by said blocks *h* and by the elasticity of the bar, and said bar resumes the normal position shown as soon as the car-wheel runs off the bar.

In case the insulating-blocks *h* are non-elastic, then the elasticity of the bar *f* will allow it to yield as the car-wheel passes over it, and to spring up to its normal position when the wheel passes off it.

I claim as my invention—

The track circuit-closer, composed of the bar *f*, supported by the insulating-blocks *h* within clips secured to the rail, substantially as and for the purposes set forth.

Signed by me this 19th day of July, A. D. 1880.

J. I. CONKLIN, JR.

Witnesses:
GEO. T. PINCKNEY,
CHAS. H. SMITH.