(No Model.)

J. M. KELLY.

RAILROAD SIGNAL.

No. 266,163. Patented Oct. 17, 1882.

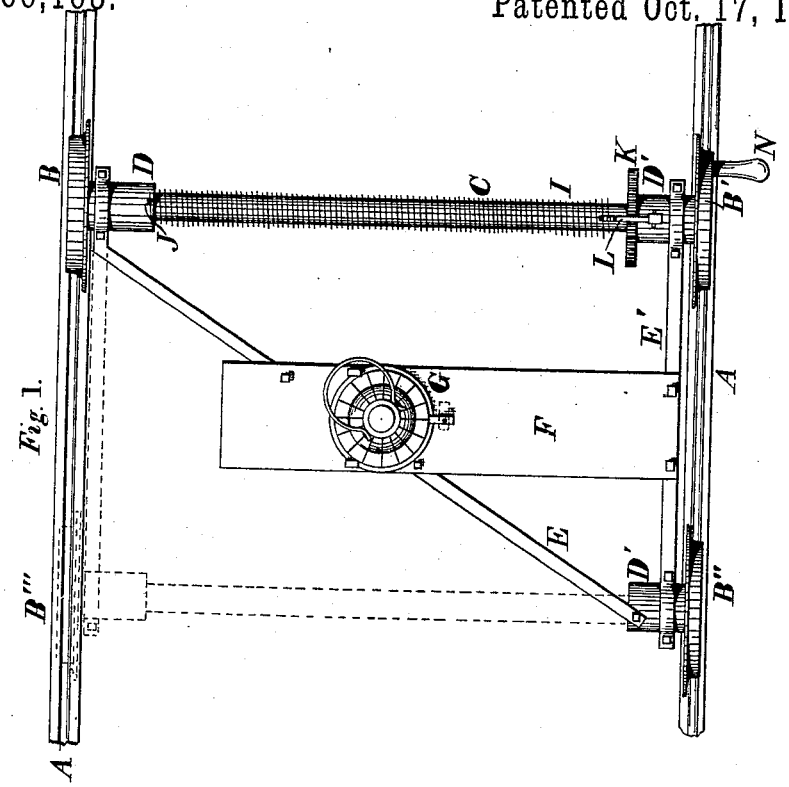

Fig. 1.

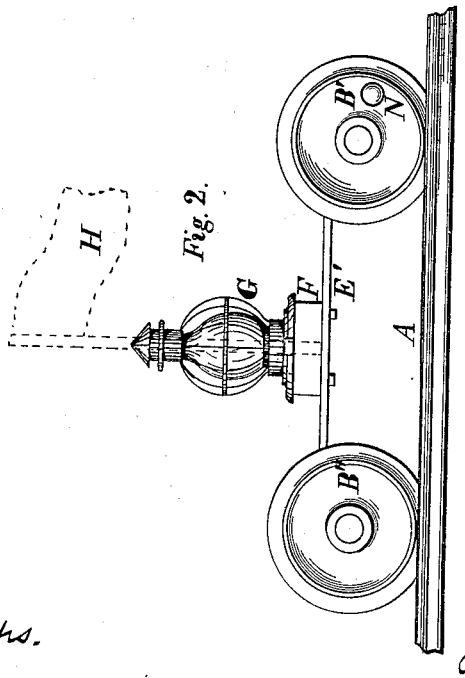

Fig. 2.

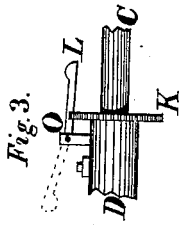

Fig. 3.

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UNITED STATES PATENT OFFICE.

J. MILLER KELLY, OF ROCHESTER, NEW YORK.

RAILROAD-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 266,163, dated October 17, 1882.

Application filed May 10, 1882. (No model.)

To all whom it may concern:

Be it known that I, J. MILLER KELLY, of Rochester, New York, have invented an Improved Railroad-Signal, of which the following is a specification, reference being had to the annexed drawings.

My invention consists in an improved self-propelling railway-signal arranged to travel on the track and give warning of impending danger, as hereinafter more fully described and specified.

My improved railroad-signal is represented in the accompanying drawings, in which Figure 1 is a plan view. Fig. 2 is a side elevation. Fig. 3 represents the ratchet-wheel and detent.

In the accompanying drawings, representing my improved traveling signal for railroads, A A are the rails of the railroad-track, and B B′ B″ the flanged wheels supporting the frame-work E E′, which carries the signal. The wheels B B′ are connected together by an axle, C, revolving in suitable journals, D D′, attached to the frame-work. The wheel B″ acts as a guide, and its axis turns independently in the journal D″; or, if preferred, it may be connected with another wheel, (shown in dotted lines at B‴,) running on the other rail.

On the frame-work connecting the axles of the wheels is sustained a suitable platform, F, on which is secured by any ordinary or preferred means a danger or other signal lantern, G, or a flag, H, the one for use at night and the other by day.

About the axle C is coiled the spring I, one end of which is affixed to the shaft and the other to one of the journal-boxes, as represented at J, Fig. 1. On this axle, next to the journal-box D′, is keyed or otherwise secured the ratchet-wheel K. In a lug, O, arising from the box D′, is pivoted the detent L, which, when engaged with the teeth of the ratchet-wheel K, prevents the spring I from turning the axle.

One of the wheels B or B′ is provided with a handle, N, for the purpose of winding up the spring, which handle may be made removable, if desired.

The manner of operating my improved railroad signal is as follows: When a train stops for any reason, and it becomes necessary to warn other trains of the stoppage, one of my improved traveling signals being placed on the track with the spring wound up, the detent is detached from the ratchet-wheel, and the signal, impelled by the unwinding of the spring, travels along the track until the spring has exhausted itself a sufficient distance from the train at rest to warn any other train and allow the engineer time to check its speed or stop to avoid a collision. The traveling signal will carry a danger-flag by day and a danger-light at night. The spring, when unwound, will retain the signal in a stationary position on the track, even if it should stop on a grade inclining in either direction. The traveling signal, after it has served its purpose of giving notice of danger, will be picked up by the next train; or the signal may be drawn back to the train at rest by means of a cord, which is unwound from a reel as the signal moves along the track. The distance which the signal will travel will be determined by the length and number of coils of the spring, an obvious modification of the device consisting in employing another shaft, about which the spring is coiled, connected with the axle C by gearing, so as to increase the number of revolutions of the latter relatively to that of the shaft carrying the spring.

Instead of the ratchet and detent, a clamp or friction-plate operated by a cam or screw, so as to produce friction between the axle C and one of its journal-boxes, may be employed for the purpose of preventing the unwinding of the spring until the signal is placed on the track.

It is obvious that a different kind of spring may be used, and that various other modifications may be made in the construction of my improved traveling signal, without departing from the principle of my invention.

The lantern, instead of being affixed by catches or clamps to the platform F, may be arranged to hang from a frame erected thereon, so that it may swing freely.

It will be observed that my improved traveling signal forms a perfect substitute for the train-man, who has in recent times so frequently failed to perform his duty to warn other trains of accident or delay. The signal will travel the requisite distance from the train which has stopped in less time than a man could cover

the ground, and will remain at its position, acting as a warning of danger, until removed.

I claim—

1. A self-propelling railway-signal arranged to travel on the track, substantially as and for the purposes set forth.

2. The combination, with a danger-signal, of a suitable frame-work and running-gear and the spring I, substantially as and for the purposes set forth.

3. The combination, with a danger-signal, of suitable frame-work and running-gear, spring I, and detent L, substantially as and for the purposes set forth.

J. MILLER KELLY.

Witnesses:
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