

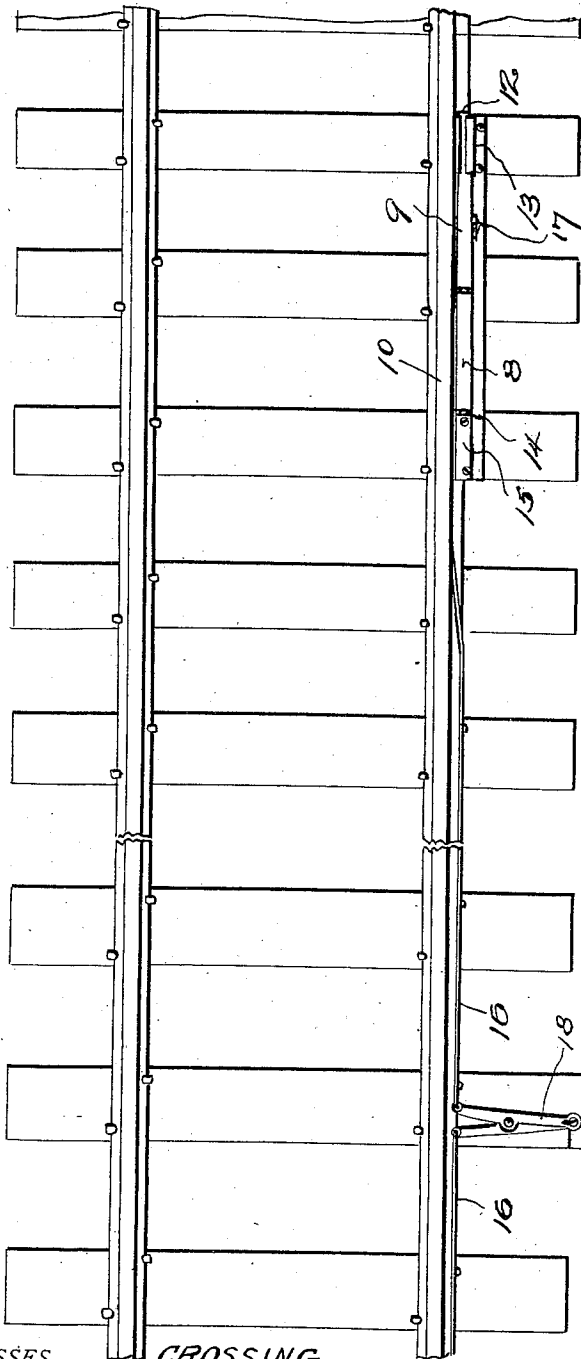
J. F. REEDER.
RAILWAY CROSSING SIGNAL.
APPLICATION FILED JULY 1, 1912.

1,054,792.

Patented Mar. 4, 1913.

2 SHEETS-SHEET 1.

FIG. 1.

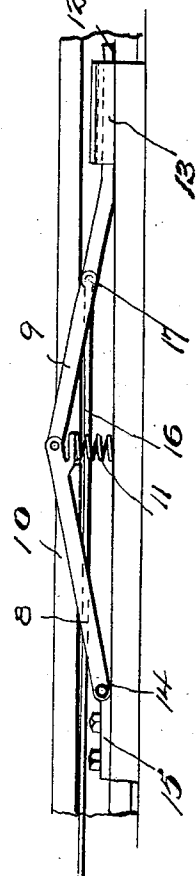


WITNESSES

C. H. Davis
H. M. Mink

CROSSING

FIG. 2.



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2 SHEETS-SHEET 2.

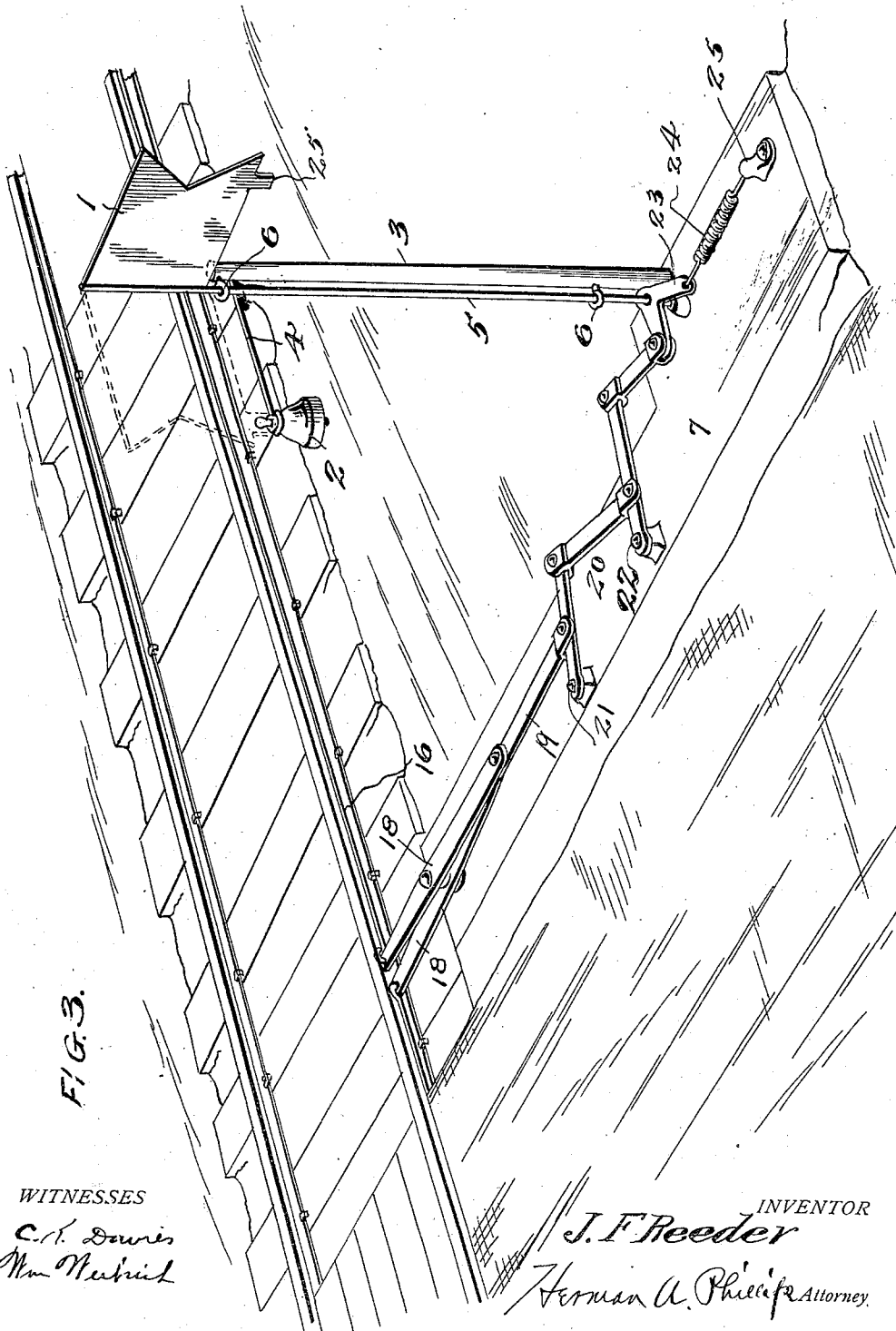


FIG. 3.

WITNESSES

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JOHN F. REEDER, OF SHELBYVILLE, ILLINOIS.

RAILWAY-CROSSING SIGNAL.

1,054,792.

Specification of Letters Patent.

Patented Mar. 4, 1913.

Application filed July 1, 1912. Serial No. 707,004.

To all whom it may concern:

Be it known that I, JOHN F. REEDER, a citizen of the United States, residing at Shelbyville, in the county of Shelby and State of Illinois, have invented certain new and useful Improvements in Railway-Crossing Signals, of which the following is a specification.

The present invention relates to an improved railway crossing signal, of the type known as visual and audible, and is automatically actuated by an approaching train of cars.

The object of the invention is the provision of means to act as a warning signal at points on railways, as for instance the highway crossing, to indicate the approach of a train upon the railway.

The invention consists essentially in a visual and audible signal located at a predetermined point, that is agitated from a distant point by the passage of the wheels of a passing train over an actuating device, and in certain combinations and arrangements of parts as hereinafter pointed out.

In the accompanying drawings I have illustrated one complete example of the physical embodiment of my invention constructed according to the best mode I have so far devised for the practical application of the principles.

Figure 1 is a plan view of a section of a railroad, equipped with my signal system. Fig. 2 is a side elevation of the signal actuating device, and Fig. 3 is a perspective view of a railway crossing showing the signal and operating mechanism.

As before stated the invention embodies both the visual and audible features of a signal, as for instance a flag 1 for the former and a bell 2 for the latter. The bell is supported from the post 3 by means of a suitable bracket arm 4, while the flag is supported upon its staff 5 to swing in the open eyes 6, 6, which are anchored in the post. The post or upright 3 is supported upon a platform 7 of concrete or other suitable material located at the side of the railroad tracks, and in this instance in close proximity to the highway crossing over the railroad.

The signal is agitated from a distance, and for this purpose, an actuating device as illustrated in Fig. 2 is located at a predetermined and suitable point beyond the crossing. This device comprises a pair of hinged arms

8 and 9, which at their hinged joint project a suitable distance above the rail 10 to be in position to be ridden down by the passing wheels of a train. A spring 11 returns the arms 8 and 9 to position, and an extension 12 of the arm 9 is guided in flanged bracket 13, while the arm 8 is hinged at 14 to a stationary member 15. From this construction it will be understood that the passage of a wheel over the device will depress the arms 8 and 9, and as the arm 8 is hinged at 14, the depression of the arms causes the arm 9 to be shoved to the right in Fig. 2, thus drawing on the draw rod 16 which is loosely connected to the arm 9 at 17.

The draw rod 16 is the medium by which the movement of the passing train actuates the signal system, and this is accomplished through the pivoted lever 18, whose link 19 is connected to the toggle levers 20. The toggle levers are anchored at pivot points 21 and 22 to the platform 7 and are likewise connected to the two armed lever 23 which is fixed on the staff 5. A spring 24 which is secured at one end to the cleat 25 is connected at its other end to the lever 23. There are two levers 18 shown, so that the signal may be operated on a single track road from a train moving in either direction toward the signal.

In operation, the passing wheels of a train of cars impact with the hinge joint of the actuating device and depress the arms 8 and 9, thus pulling on the draw rod 16. The movement of the draw rod 16 swings the lever 18 on its pivot, and thus movement, through the link 19, pulls on the toggle levers 20 to swing the two arm lever 23, the staff 5 and flag 1, in one direction, and the spring 24 immediately returns the lever 23 after the passage of a wheel. Thus through the depression of the actuating arms 8 and 9, and the strength of the spring 24, the lever 23 is agitated and with it the flag 1. The flag is preferably of metal and is formed with a projection 25', and as the bell 2 is located in the path of movement of the projection 25 when the flag is agitated, it will be understood that the agitation of the flag, through the impact of the projection 25' rings the bell 2. In this manner the flag is violently waved back and forward and the bell continually made to ring, as long as the train of cars is passing over the actuating device, and a sufficient warning is given of the approach of a train.

Having thus fully described my invention what I claim is:—

5 A combined audible and visual signal comprising a vertically arranged rotatable staff and a rigid flag thereon formed with a projection, a bell in the path of movement of the projection, a two armed lever fixed to the staff and a spring fixed to one of the lever arms, and suitably actuated toggle

levers connected to the other arm for oscillating said staff. 10

In testimony whereof I affix my signature in presence of two witnesses.

JOHN F. REEDER.

Witnesses:

MICHAEL KESSEL,
S. S. CROOK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
