(No Model.)

O. P. BONNER.

DANGER SIGNAL FOR RAILWAY CROSSINGS.

No. 590,877. Patented Sept. 28, 1897.

Fig. 1.

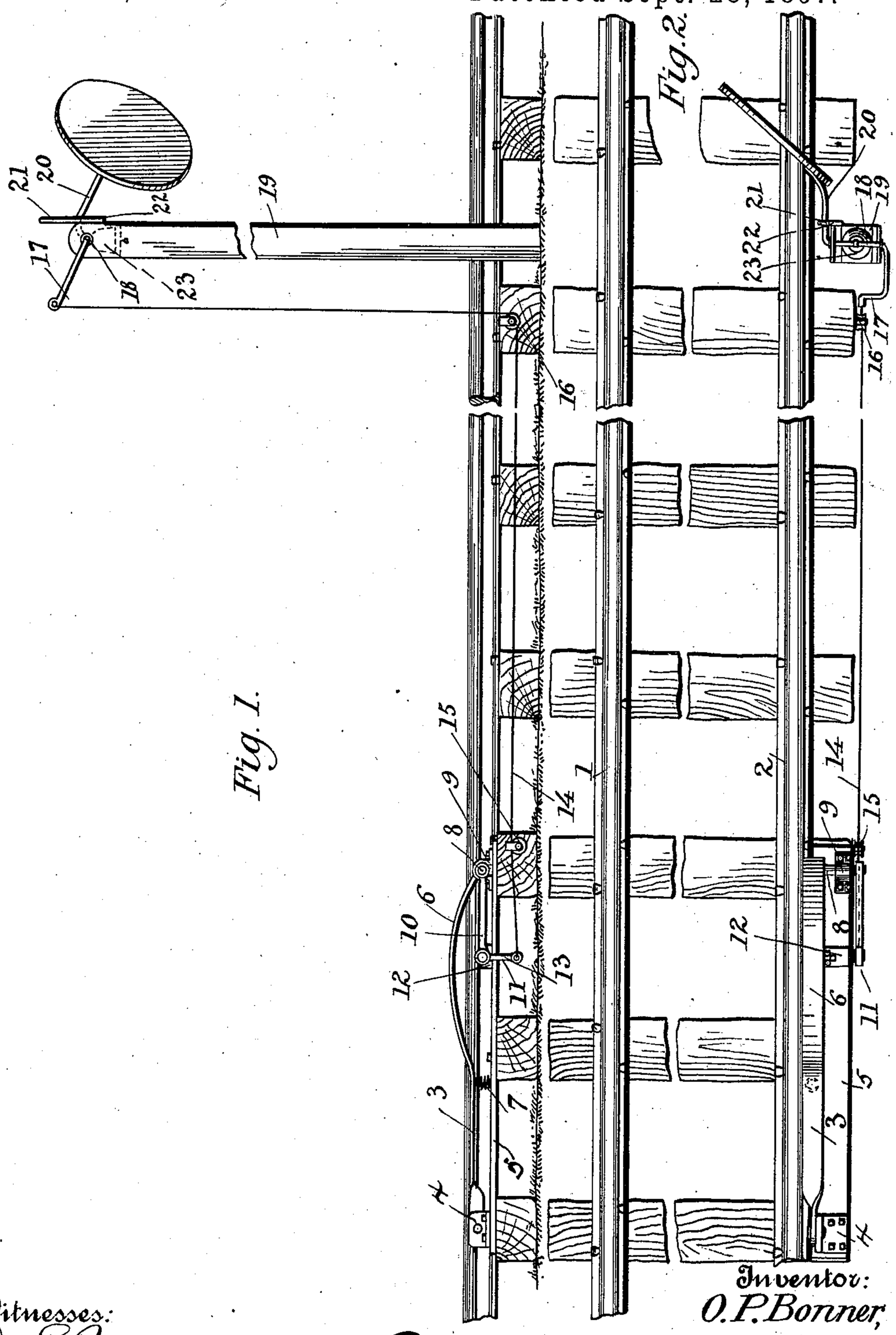

Fig. 2.

Witnesses:
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UNITED STATES PATENT OFFICE.

OSCAR P. BONNER, OF CRAWFORDSVILLE, GEORGIA.

DANGER-SIGNAL FOR RAILWAY-CROSSINGS.

SPECIFICATION forming part of Letters Patent No. 590,877, dated September 28, 1897.

Application filed July 8, 1897. Serial No. 643,851. (No model.)

To all whom it may concern:

Be it known that I, OSCAR P. BONNER, a citizen of the United States, residing at Crawfordsville, in the county of Taliaferro and State of Georgia, have invented certain new and useful Improvements in Danger-Signals for Railway-Crossings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an automatic danger-signal for railway-crossings; and the object is to provide an audible as well as a visible signal for railway-crossings that will be automatically operated by a railway-train approaching said crossing.

To this end the invention consists in the construction, combination, and arrangement of the device, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the accompanying drawings the same reference-characters indicate the same parts of the invention.

Figure 1 is a side elevation of my improved danger-signal. Fig. 2 is a top plan view of the same.

1 and 2 represent the rails; 3, a longitudinal horizontal lever fulcrumed on a bracket 4, fixed to a plate 5, secured to the ties and extending parallel with the rails.

The lever 3 is formed at its free end with a curved portion 6, which projects into the path of the car-wheels, so that the wheels in traveling over the rails will come in contact with the projecting portion of the lever to depress it for a purpose to be hereinafter set forth.

7 represents a spiral spring extending from plate 5 to the lever 6, and its tension is exerted to press the lever upwardly, so that its curved portion will extend above the rail. The free end of the lever 3 is provided with a lateral pin 8, which extends through a vertical slotted guide-bracket 9, and its outer end engages a horizontal arm 10 of a bell-crank lever 11, fulcrumed in a bracket 12, fixed to the plate 5. The depending arm 13 of said bell-crank lever is connected to a wire rod 14, which passes over a guide-pulley 15 and under a grooved pulley 16, and its opposite end is connected to the crank-arm 17 of a shaft 18, mounted in a post 19, fixed at a point where the crossing intersects the railway-track. The opposite end of the shaft 18 is provided with an approximately horizontal arm 20, which extends through a vertical oblong eye 21 in the guide-bracket 22, fixed to the upper end of the post 19. The outer end of this arm is provided with a vane or any suitable form of visual signal, which normally remains in a horizontal depressed position when not in operation, but when the lever 3 is depressed by contact with the wheels of the train the wire rod 14 draws the arm 17 down, which throws the vane up into conspicuous view.

23 represents an alarm-bell mounted on the shaft 18, which serves to give an audible alarm when the signal is in operation. As the lever 3 is depressed to operate the signal when in contact with the car-wheels, the spring 7 restores the lever 3 to its normal position after a wheel has released it, and consequently it is depressed and raised to continually operate the signal during the passage of a train.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

Having thus fully described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

An automatic railway-crossing signal, comprising the lever 3, fulcrumed on the bracket 4, fixed to the plate 5, and having its curved portion 6 projecting into the path of the car-wheels, the spring 7 arranged to project said lever into the path of the car-wheels, the pin 8 fixed in the free end of said lever and extending through the guide-bracket 9, the bell-crank lever 11 having its horizontal arm pivoted to said pin, in combination with the shaft 18, formed with a crank-arm 17, connected

to the vertical arm of said bell-crank lever by a flexible rod, an alarm-bell mounted on said shaft, and a signal-vane mounted on an approximately horizontal arm of the shaft, and a guide-bracket 22 adapted to limit the motion of the horizontal arm of said shaft, substantially as shown and described.

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

OSCAR P. BONNER.

Witnesses:
D. P. HENRY,
S. H. RHODES.