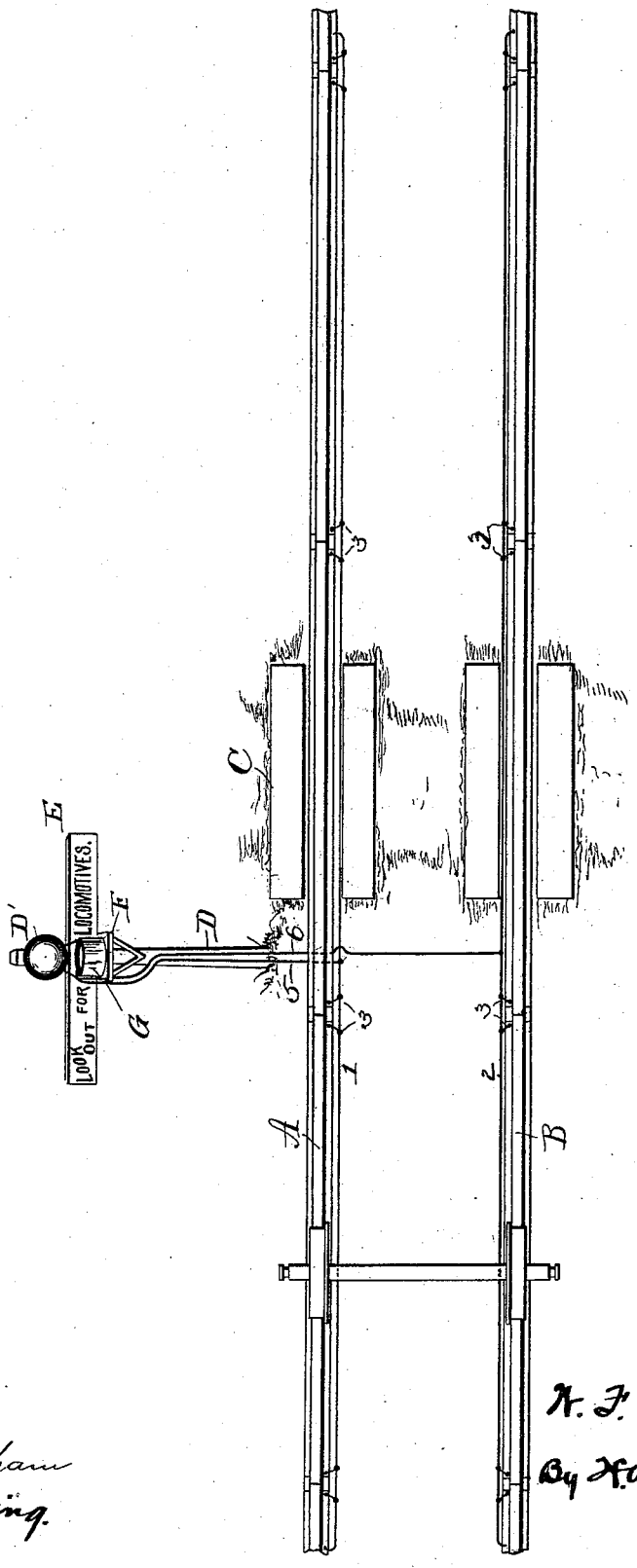
(No Model.)

W. F. SEYMOUR.

ELECTRICAL RAILROAD SIGNAL.

No. 525,290. Patented Aug. 28, 1894.



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UNITED STATES PATENT OFFICE.

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ELECTRICAL RAILROAD-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 525,290, dated August 28, 1894.

Application filed June 30, 1894. Serial No. 516,210. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. SEYMOUR, a resident of Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Electrical Railroad-Signals; and I do hereby 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 improvement in railroad signals or alarms and more particularly to such as are located at crossings, where a country road crosses the tracks or where two railroads cross,—the object of the invention being to produce simple and efficient means whereby to automatically sound an alarm at a railroad crossing when a train approaches the same from either direction, and to construct devices for this purpose in such manner that a small battery will be sufficient to properly operate the signal or alarm.

A further object is to produce a signal or alarm for railroad crossings which shall be accurate and sure in operation, which shall comprise few parts and be cheap to manufacture and easy to construct and which shall, in all respects, be effectual in the performance of its functions.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts as hereinafter set forth and pointed out in the claims.

The accompanying drawing illustrates my invention.

A, B, represent the rails of a railroad track and C a road crossing the same. Alongside the railroad in close proximity to the crossing C, a post D is located and to it a sign board E having the words "Look out for locomotives" produced thereon, is preferably secured. An electric bell D′ of any suitable form of construction (preferably a rheotome bell) is secured to the post or pole D at or near the top thereof, and below the bell, a bracket F is secured for the support of a battery G or other suitable electrical generator. Feed wires 1, 2, are located along the respective rails A, B, for a suitable distance at each side of the crossing C, say about one-fourth of a mile, more or less, and at their ends said feed wires are electrically connected with the respective rails. At the joints of the rails the feed wires are electrically connected with the respective rail sections by means of short connecting wires 3, thus producing a bridge around each rail joint. Wires 5, 6, are electrically connected with the respective feed wires and, being extended up alongside the pole D, are connected in circuit with the electric bell D′.

When a train approaches the crossing from either direction and reaches a point within the length of the feed wires, an electric circuit will be closed through the bell, battery, rails, feed wires, connecting wires and the wheels and axle of the locomotive and the bell D′ will be caused to sound, the sounding of the bell being continued until the train leaves the other end of the feed wires. By connecting the rails with a feed wire for a quarter of a mile, more or less, at each side of the crossing, and then including the bell and battery in circuit with these feed wires, a comparatively feeble current will suffice to sound the bell and consequently a very small battery may be employed, and this battery, being located near the top of the pole will be out of the way of persons who would be liable to tamper with it. Were the rails alone used as conductors, the current from the small battery would extend for a considerable distance from the signal and would not, at any point, except possibly just at the crossing, be sufficient to properly ring the bell, but by the use of the feed wires connected with the rails at their ends and with the rails at the joints of the rail sections, the current is confined, to all intents and purposes, to a limited distance at each side of the crossing.

Instead of locating the battery on the bracket secured at the top of the post, the battery may be located in a box placed in the ground; or, when the signal is situated near a station or telegraph office, the battery

may be located there. Or, the battery for operating the signal might be located on the locomotive.

My improvements are exceedingly simple in construction, can be easily manufactured and are effectual, in all respects, in the performance of their functions.

Slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope and hence I do not wish to limit myself to the precise details of construction herein set forth, but,

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with the rails of a track at a crossing, of feed wires connected at their ends to said rails a limited distance on each side of the crossing, connecting wires connecting said feed wires to the respective rails at the joints thereof so as to form bridges at such joints, an electric bell at the crossing and wires connecting electric bell in circuit with said feed wires, substantially as set forth.

2. The combination with the rails of a track at a crossing, of feed wires connected at their ends to said rails a limited distance at each side of the crossing, connecting wires connecting said feed wires with the respective rails at the joints thereof, a post at the crossing, a bell on said post, a bracket secured to the post, a battery on said bracket, and wires connecting said bell and battery in circuit with said feed wires, substantially as set forth.

3. The combination with the rails of a track at a crossing, of feed wires connected with the rails of the track a limited distance at each side of the crossing, wires connecting said feed wires with the rails at the joints thereof so as to form bridges at such joints, a post at the crossing, an electric bell supported by said post and a battery included in circuit with said bell and feed wires, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM F. SEYMOUR.

Witnesses:
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