

(No Model.)

N. J. SMITH.
RAILWAY ALARM BELL.

No. 575,996.

Patented Jan. 26, 1897.

Fig. 1

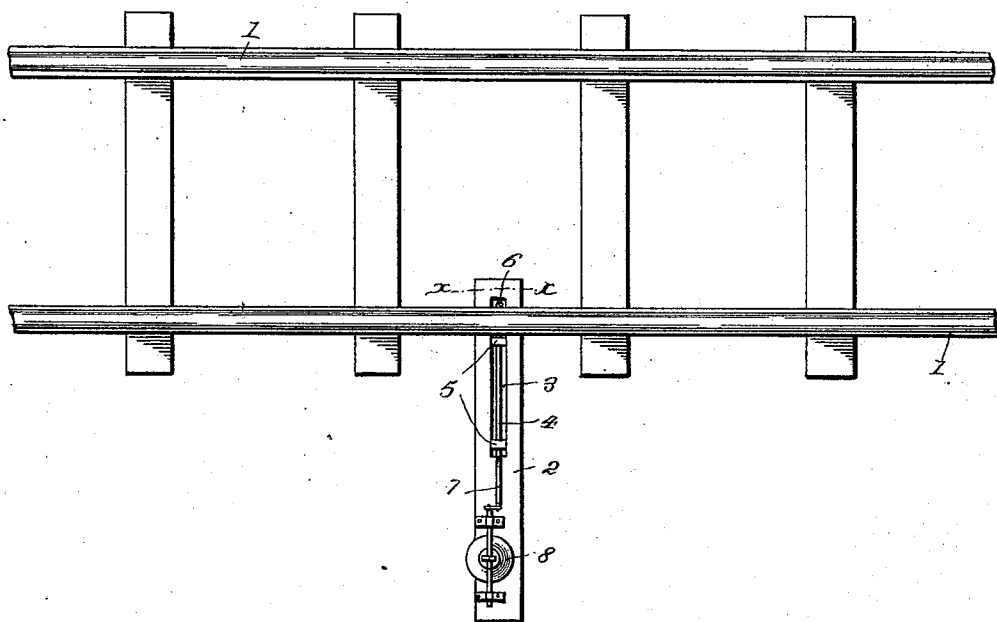


Fig. 2

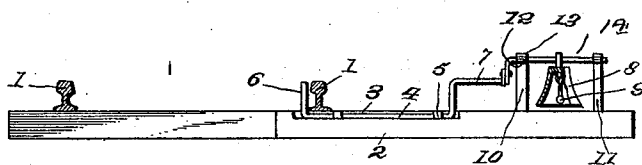
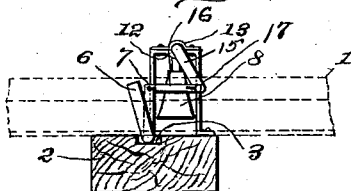


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

NEWELL JUDSON SMITH, OF MERIDEN, CONNECTICUT.

RAILWAY ALARM-BELL.

SPECIFICATION forming part of Letters Patent No. 575,996, dated January 26, 1897.

Application filed July 24, 1896. Serial No. 600,421. (No model.)

To all whom it may concern:

Be it known that I, NEWELL JUDSON SMITH, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Railway Alarm-Bells; 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 automatically-operated signals for railways.

My object is to provide an extremely simple and cheap signal which can be placed at a suitable distance in advance of a bridge or other structure through which the train has to pass, and will be automatically operated by movement of the train to audibly indicate that the latter is approaching the structure, so that the trainmen will have time to get down from the top of the cars and out of the way, thereby satisfactorily obviating the frequent injuries that happen to brakemen and other trainmen of freight-trains by being struck by a bridge or other structure when the train is in motion, as when they are on top of the cars.

Having this object in view, my invention consists of an alarm or signal comprising certain novel features and combinations appearing more fully hereinafter.

In the accompanying drawings, Figure 1 is a plan view, and Fig. 2 a view in cross-section. Fig. 3 is an end view.

The numerals 1 designate the rails of an ordinary track. I employ an extra beam 2, which is located intermediate of two ties and has its inner end projecting under one of the rails, said beam being provided with a longitudinally-extending groove 3.

The numeral 4 designates a rod which is received in the groove and held therein by suitable metal strips 5, which straddle it. The inner end of this rod is formed into a tripping-arm 6, which extends up and alongside the rail on the inner side of the latter, so that it will be struck by the flanges of the car-wheel. The outer end of the rod is formed into a crank 7.

The numeral 8 designates a bell of ordinary construction, which is provided with a pivoted clapper 9.

Two brackets 10 and 11 are provided with

feet which are connected to the beam, and each bracket has a depressed semicircular portion 12, which is adapted to receive the rod 14, from which the bell is hung, said rod having a crank-arm 15. A suitable cap-plate 13 is provided for the bracket, and it straddles the rod and is suitably fastened to the bracket. A link 16 is pivoted to the crank-arm 7 and connected to a crank-arm 15 by a slot-and-pin connection 17. When the flanges of the wheels strike the tripping-arm, it is rocked and the bell swung around so that the clapper of the latter is agitated and the bell rung. This operation is repeated as each succeeding wheel strikes the tripping-arm, and thus a series of sounds are sent forth, warning the trainmen that the train is approaching a bridge or other structure.

My improved alarm or signal can be placed at any desired distance from the structure, and, if desirable, more than one can be employed.

It is obvious that many slight and immaterial changes of construction might be resorted to in carrying out my invention, and hence I am to be understood as considering myself entitled to all such variations as come within the spirit and scope of my invention.

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

In a railway alarm or signal, the combination with a rail, of a beam provided with a longitudinally-extending groove, a rod or shaft received in said groove and provided on its inner end with a tripping-arm which extends up alongside of the rail, and at its other end with a crank-arm, straps for holding the rod in the groove, a bell provided with a clapper, brackets connected to the bell, and provided with depressed portions which receive the crank, and cap-plates which are connected to the bracket and fit over the crank, said parts being so disposed and related that when the tripping-arm is struck the shaft or rod is turned and the bell agitated.

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

NEWELL JUDSON SMITH.

Witnesses:

EDWD. M. MERRIAM,
JOHN J. ANDERSON.