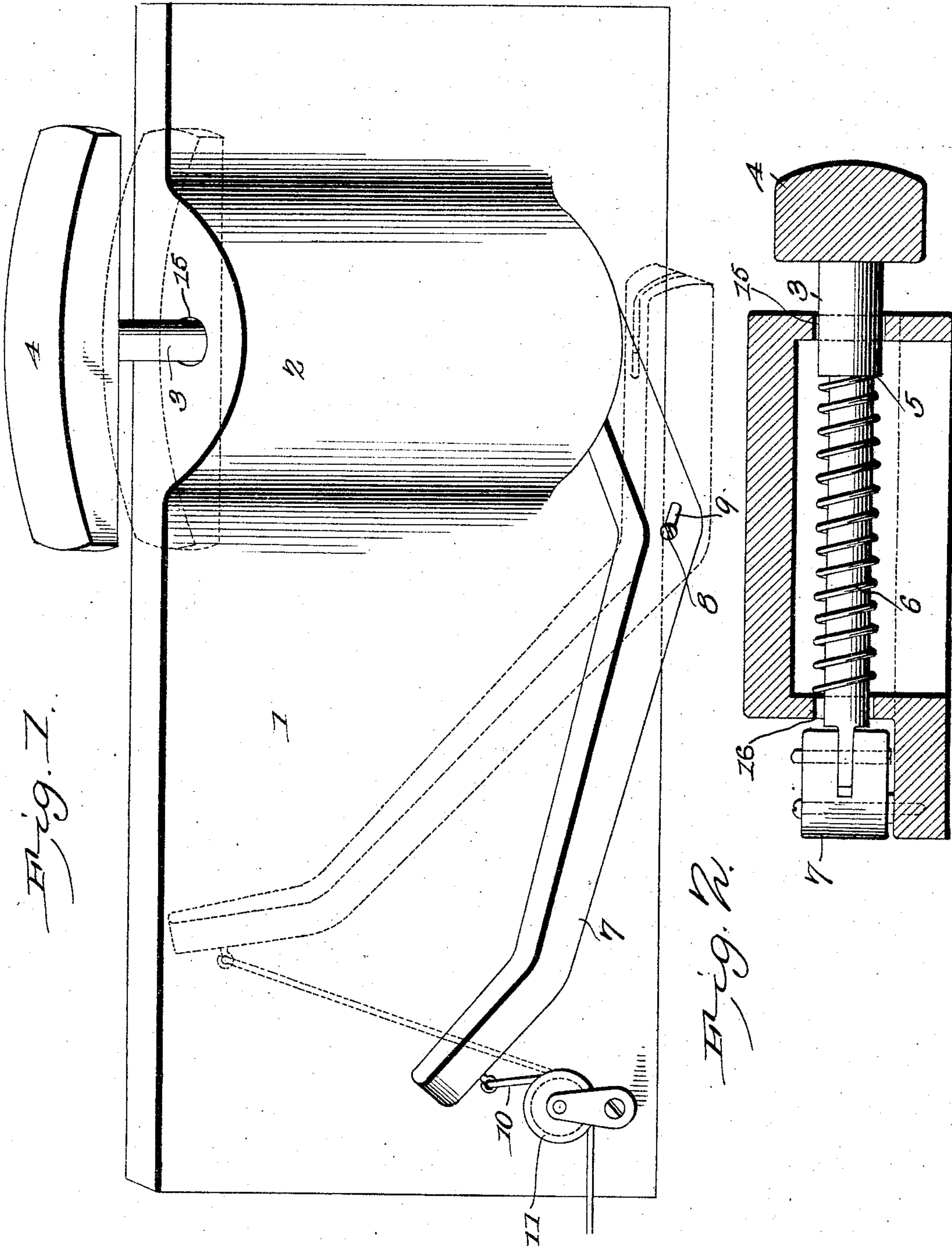


No. 772,236.

PATENTED OCT. 11, 1904.

D. L. HOOVER.
RAILROAD CROSSING SIGNAL.
APPLICATION FILED MAY 18, 1904.

NO MODEL.



Witnesses
E. J. Stewart
W. H. Clarke

David L. Hoover, Inventor,
by *Chas. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

DAVID LEE HOOVER, OF FRANKLIN, TENNESSEE.

RAILROAD-CROSSING SIGNAL.

SPECIFICATION forming part of Letters Patent No. 772,236, dated October 11, 1904.

Application filed May 18, 1904. Serial No. 208,606. (No model.)

To all whom it may concern:

Be it known that I, DAVID LEE HOOVER, a citizen of the United States, residing at Franklin, in the county of Williamson and State of Tennessee, have invented a new and useful Railroad-Crossing Signal, of which the following is a specification.

This invention relates to signals for railroad-crossings.

10 The objects of the invention are to improve and simplify the construction of such devices and to increase their reliability and efficiency in operation.

With these objects in view the invention resides in the particular combination and arrangement of parts and in the precise details of construction hereinafter described with reference to the accompanying drawings, forming part of this specification, wherein—

20 Figure 1 is a perspective view of the improved device; and Fig. 2 is a cross-section, partly in elevation.

The device of this invention comprises a plate 1, adapted to be fastened to one of the rails of a track at a point two to three hundred yards removed from a crossing. Formed upon the plate 1 is a casing 2, provided at its upper and lower ends with openings forming bearings through which extends a vertically-movable rod 3, having on its upper end a shoe 4, adapted to be struck and depressed by each wheel of a passing train. The rod 3 is decreased in diameter at its lower end to form a shoulder 5. Surrounding the small part of the rod 3 is a coil-spring 6, which bears at its upper end against the shoulder 5 and at its lower end against the bottom of the bearing 2. The coil-spring 6 serves normally to maintain the rod 3 and shoe 4 in raised position and to force them upward each time they are depressed by a car-wheel. At its lower end the rod 3 is pivotally connected to a lever 7, which is fulcrumed on a pin 8, set into the plate 1. The lever 7 is formed with a slot 9 adjacent to the pin 8, whereby said lever is capable of moving longitudinally upon its fulcrum, and the rod 3 is permitted to reciprocate in a true vertical direction without interference from the lever. At its fulcrum-point the lever 7 is bent up-

wardly, as shown, and it is also bent upwardly again at its long end.

Attached to the bent long end of the lever 7 is a wire or other suitable flexible element 10, which passes over a pulley 11 on the plate 1 and extends down the track to the vicinity of the railway-crossing, where it is connected with a bell or other suitable alarm device. The bent formation of the lever permits a greater pull to be exerted on the wire 10.

The operation of the improved device will be apparent from the foregoing description in connection with the drawings. As a train approaches the crossing upon which the device is used each wheel as it strikes and depresses the shoe 4 causes the alarm to be sounded at the crossing, thereby warning the public that a train is approaching.

The improved device of this invention is strong, simple, durable, and inexpensive in construction, as well as thoroughly practical and efficient in operation. It is automatically actuated and dispenses with the use of electricity in such signaling devices, a grave fault with which is that the batteries may freeze or become exhausted at a critical moment, thus rendering the device useless.

Heretofore a bridge-alarm for trainmen has been devised which comprises a gong adapted to be sounded by the wheels of a freight-train to warn the freightmen that they are approaching an overhead bridge. This prior device is adapted for use only in the connection described, as it does not sound the alarm until the first wheel of the train has passed the gong. For this reason it is not adapted to be placed at a railway-crossing to warn the public that a train is approaching. The present invention is designed to improve the construction of the prior device by making it capable of use at a crossing. In its particular arrangement of parts and in its precise details of construction the present invention presents an improvement over the prior device.

It will be observed that the plate 1 is preferably cast or formed integral with the casing 2, through which the vertically-movable rod 3 extends and within which the spring whereby the said rod is actuated is accommodated. The perforation 15 at the upper end of said

casing is of a size which will admit of the passage of the portion of the rod 3 which is of the greatest diameter, the perforation 16 at the lower end being adapted for the passage of the reduced end of said pin, the spring 5 having a bearing against the bottom of the casing and also against the shoulder 5 of the rod 3, upon which it is coiled. This construction is extremely simple, effective, and durable and permits the parts to be readily assembled.

The device is capable of being manufactured at a small expense and of being easily applied to a railroad-track.

15 Having thus described the invention, what I claim is—

20 In a device of the class described, a base-plate having a casing formed thereon, said casing being provided at its upper end with a large perforation and at its lower end with a smaller perforation, a rod having a reduced

lower end forming a shoulder, said rod being mounted for reciprocation in the perforations of the casing, a spring coiled upon said rod within the casing and having a bearing against 25 the lower end of the casing and another bearing against the under side of the shoulder upon the rod, a shoe at the upper end of the latter, a pin extending laterally from the base-plate, a bent lever having a slot engaging said 30 pin, a pivotal connection between one end of said lever and the lower end of the rod, and a flexible element extending from the opposite end of the lever to an alarm device.

In testimony that I claim the foregoing as 35 my own I have hereto affixed my signature in the presence of two witnesses.

DAVID LEE HOOVER.

Witnesses:

GEO. H. ARMISTEAD,
W. M. SHORT.