(No Model.)

B. CODDINGTON.

RAILWAY TRACK SIGNAL.

No. 535,573. Patented Mar. 12, 1895.

Fig. 1.

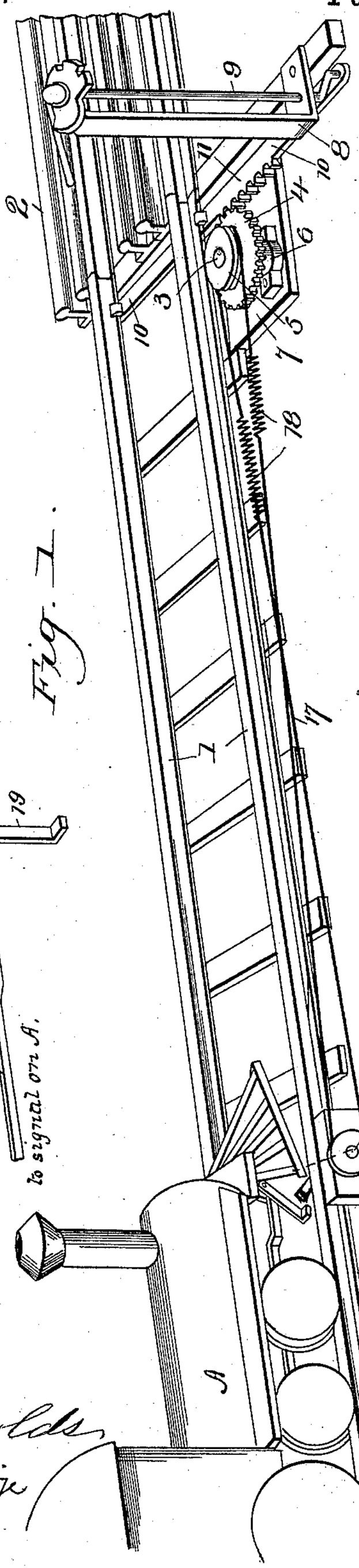


Fig. 3.

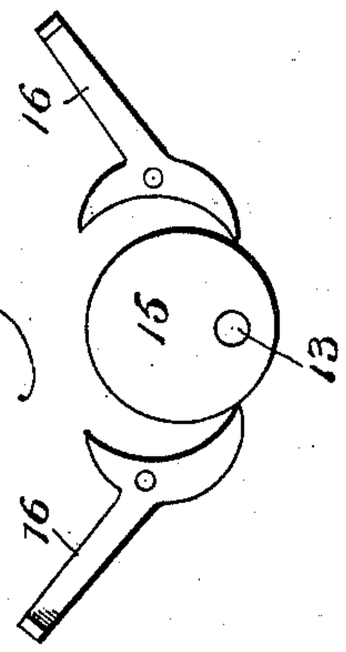


Fig. 2.

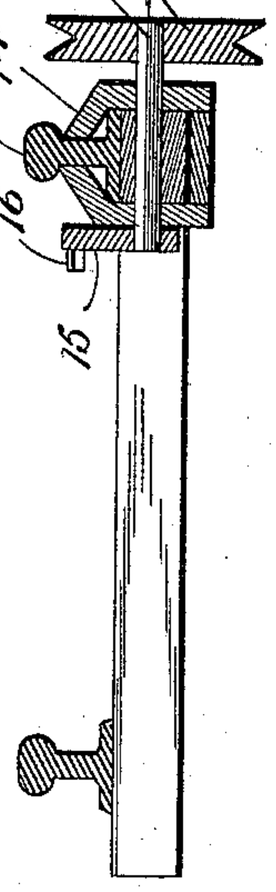
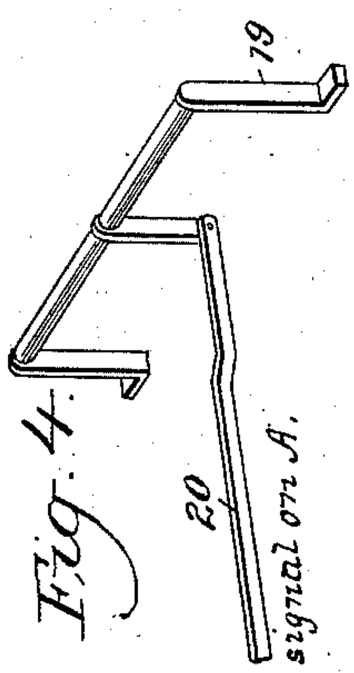


Fig. 4.



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UNITED STATES PATENT OFFICE.

BERT CODDINGTON, OF CONWAY, KENTUCKY.

RAILWAY-TRACK SIGNAL.

SPECIFICATION forming part of Letters Patent No. 535,573, dated March 12, 1895.

Application filed January 10, 1894. Serial No. 496,380. (No model.)

To all whom it may concern:

Be it known that I, BERT CODDINGTON, a citizen of the United States, and a resident of Conway, in the county of Rock Castle and State of Kentucky, have invented certain new and useful Improvements in Railway-Track 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.

This invention relates to railway track signals, and has for its purpose and object to arrange devices in connection with a track to indicate a misplaced switch and by means of said devices on the track co-acting with other devices on the locomotive, inform the engineer by an actuation of the whistle, the signal bell, or pneumatic signal, a sufficient distance away from the switch to permit stopping of the locomotive and train.

With these and other objects in view the invention consists of the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings: Figure 1 is a perspective view of a portion of a track, showing a switch and switch stand, and a portion of a locomotive, embodying the invention. Fig. 2 is a transverse section on the line *x*—*x*, Fig. 1. Fig. 3 is a detail elevation of part of the mechanism. Fig. 4 is a similar view of the locomotive attachment.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

Referring to the drawings, the numeral 1 designates the main track rails, and 2 the switch or siding rails. Adjacent to the latter is arranged a rotatable, vertically disposed mandrel or shaft 3 having a pinion 4 keyed to the lower portion thereof, and above said pinion a double grooved pulley or wheel 5, also fastened to said mandrel or shaft. These parts are supported by a box bearing 6, secured to a projecting timber or tie 7, also having thereon near the outer end a switch stand 8. Connected to the switch lever 9, running over and working along the edge of said timber or tie 7, is a metallic bar 10, having cogs or teeth 11 therein, which mesh with the pinion 4, and when the switch lever 9 is moved, the said bar 10 also moves therewith and actuates the pinion 4 to turn the mandrel or shaft 3 and also the pulley or wheel 5.

At a suitable distance from the switch stand, varying from five hundred to one thousand yards or more less, a single grooved wheel 12 is vertically disposed against the outer side of one of the main track rails 1, and is keyed on the end of a shaft 13 running through and rotatable in a box bearing 14. The inner end of the said shaft 13 has an eccentric 15 thereon with which engages arms 16 having their free ends arranged angularly and are raised alternately above the adjacent rail at different times according to the movement of the switch lever 9. The wheel 12 is surrounded by and has connected thereto a wire belt 17 which runs to one of the grooves of the pulley or wheel 5 to which it is also secured, the remaining groove of said pulley or wheel being adapted to be engaged by a similar belt running in the opposite direction. The attachment of the said belt 17 to the wheels 5 and 12 avoids slipping and insures a positive action or response and conveyance of motion from one wheel to the other. In the two parts of the belts 17 are coiled springs 18, which take up any slack in said belt and sustain the latter at a uniform degree of tension.

The belt may be piped above or underground, and arranged overhead on suitable supports, all of which are well known expedients in the art.

Pivotally secured to the bundle beam of the locomotive is a double lever 19 to form a projecting arm near each track rail, and to the said lever is attached a rod 20 running back to the bell or pneumatic signal in the cab or to the whistle, and as shown in Fig. 1, as soon as said lever strikes the raised arm inside of the track, the said lever 19 will be thrown back and pushing on the rod 20 will actuate the signal as set forth and thereby warn the engineer of an open switch or danger ahead.

Two arms 16 are shown in the drawings and have been described herein as engaging the eccentric 15 on the shaft 12, for the purpose of operating through the double lever 19 the locomotive signal. It is obvious, however, that one only need be utilized. It is preferable, though, to have two, because if the

switch lever 9 be turned in either direction from its normal position, it will cause to be raised one or the other of these arms 16, and thereby insure the actuation of the locomotive signal.

The time of warning and distance from the switch will be sufficient to permit slowing down and stopping of the locomotive or train in time to avoid accident.

The devices are all positive in their action, are comparatively simple, and convenient in use. The double lever 19 insures the operation of the rod 20 in either direction of movement of the locomotive head on.

Having thus described the invention, what is claimed as new is—

In a track signal the combination of a shaft extending through one side of the main track and having a grooved pulley on its outer end and an eccentric engaging a pair of arms on the inner end of the same, a wire belt engaging said grooved pulley and having coiled springs in the body thereof, a double grooved pulley adapted to be engaged by said wire belt, a pinion working with the said double grooved pulley, a metallic bar having cogs or teeth therein adapted to engage said pinion, and a switch bar, said arms on the eccentric being adapted to be engaged by a projection on the locomotive or car which connects with and actuates a signal, substantially as described.

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

BERT CODDINGTON.

Witnesses:
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