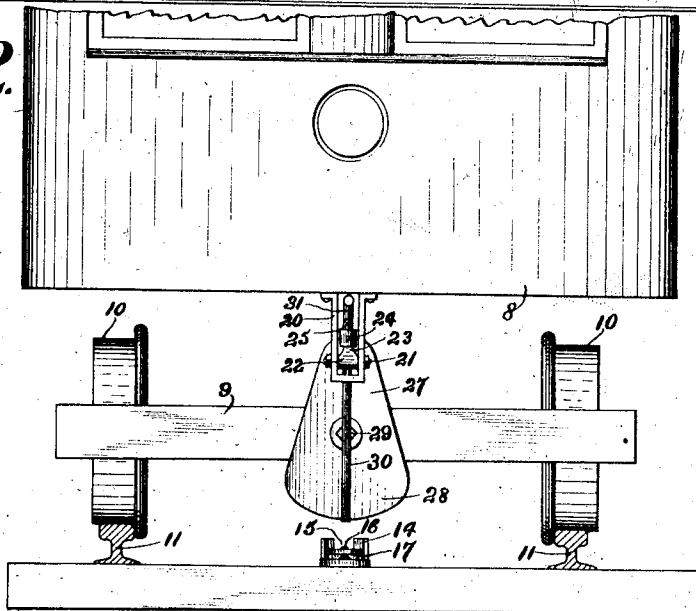


947,126.

2 SHEETS—SHEET 1



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Witnesses

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J. R. RITTER.
SWITCH THROWING MECHANISM.
APPLICATION FILED JULY 23, 1909.

947,126.

Patented Jan. 18, 1910.

2 SHEETS—SHEET 2.

Fig. 3.

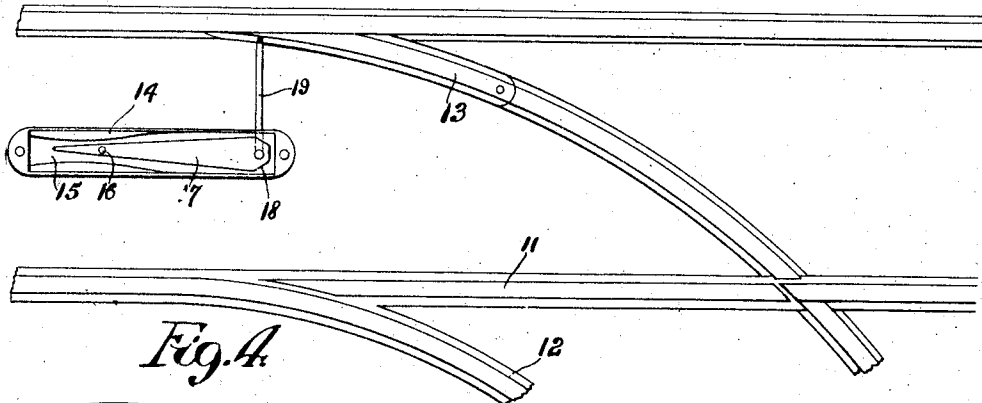


Fig. 4.

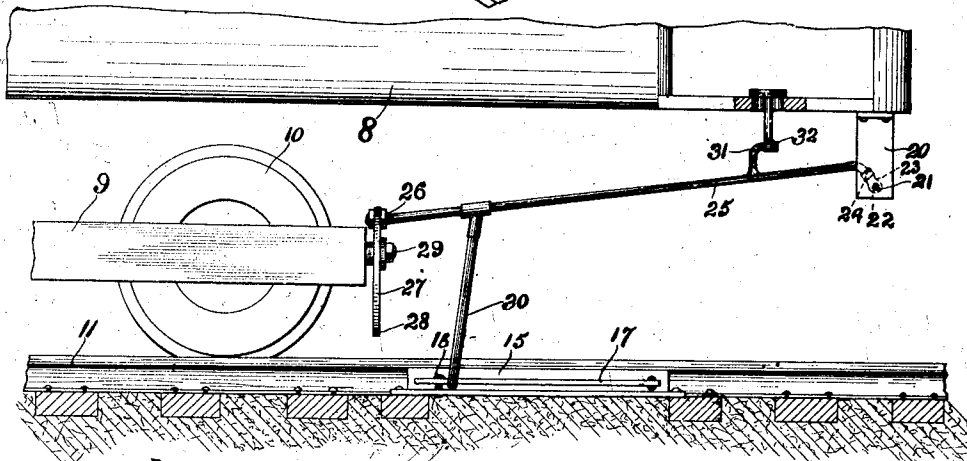
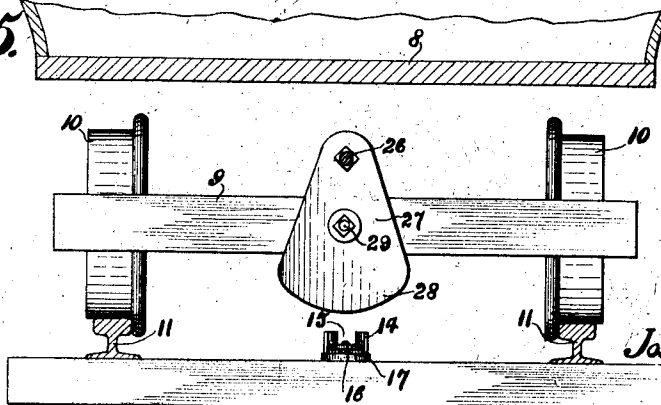


Fig. 5.



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JOSEPH R. RITTER, OF JACKSONVILLE, FLORIDA.

SWITCH-THROWING MECHANISM.

947,126.

Specification of Letters Patent. Patented Jan. 18, 1910.

Application filed July 23, 1909. Serial No. 509,087.

To all whom it may concern:

Be it known that I, JOSEPH R. RITTER, a citizen of the United States, residing at Jacksonville, in the county of Duval, State of Florida, have invented certain new and useful Improvements in Switch-Throwing Mechanism; 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.

The invention relates to railway switch mechanism and more particularly to the class of mechanism for operating the same and adapted to be mounted upon railway cars.

The primary object of the invention is the provision of switch operating mechanism in which a switch may be opened or closed in advance of the car without the necessity of a switch attendant and also without requiring the motorman or other operator to leave the car.

Another object of the invention is the provision of a switch operating mechanism of this character in which a switch may be at all times under the control of a motorman or other operator upon a railway car and that will enable the said switch to be thrown to opened or closed position prior to the arrival of the car at the switch.

A further object of the invention is the provision of switch operating mechanism which is simple in construction, one that is capable of being readily and easily mounted upon a railway car, and that will be thoroughly reliable and efficient in operation and inexpensive in the manufacture.

With these and other objects in view, the invention consists in the construction, combination, and arrangement of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawings, to enable those skilled in the art to carry the invention into practice and as set forth in the claims hereunto appended.

In the drawings:—Figure 1 is a fragmentary side elevation of a railway car with the invention applied thereto and in an inoperative position. Fig. 2 is a front elevation thereof. Fig. 3 is a fragmentary top plan view of a switch adapted to be actuated by the switch operating mechanism on the car. Fig. 4 is a longitudinal sectional view through a portion of the car and through a portion of the road bed showing the mechanism in a position for operating the switch. Fig. 5 is a transverse sectional view through the car on the line 5—5 of Fig. 1.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

In the drawings, the numeral 8, designates generally a car body the same supported by a wheeled truck frame 9, of the usual or well known construction, the wheels 10, of which being adapted to travel upon a track 11, the latter intersected by a siding or branch track 12, the same being opened and closed by a movable switch point 13, which latter is also of the ordinary or well known type. Located within the bed of the main track 11, centrally between its rails is a casting forming a guideway 14, the same arranged slightly in advance of the intersecting siding or branch track 12, and this casting is provided with a guide channel or slot 15, the latter extending entirely through the length of the casting and opening through opposite ends thereof.

Disposed centrally within the slot 15, in the casting and connected to the base thereof, by means of a pivot 16, is a switch throwing bar or arm 17, the latter tapering toward its pivotal extremity and having a beveled opposite end 18, and to this movable switch throwing bar or arm 17, is pivotally connected a link rod 19, the latter also pivotally connected to the switch point or tongue 13, so that upon lateral movement of the switch throwing bar or arm 17, in one direction transversely of the track it will open the siding or branch track to permit an approaching car to travel from the main line onto the siding or branch track and upon movement of the switch throwing arm or bar in an opposite lateral direction transversely of the main track it will operate the switch point or tongue 13, to close the siding or branch track to permit an approaching car to continue along the main track past the switch.

The mechanism for automatically operating the switch is carried upon the car 8, and comprises an inverted U-shaped bracket or yoke member 20, secured and depending centrally from the front end of the car. Mounted within the yoke or bracket 20, upon a pivot 21, is a rocking casting 22, the latter having rising therefrom a central shank or stem 23, to which is connected by a swivel joint 24, a laterally and down-

wardly movable switch operating rod 25, the same extending a considerable distance rearwardly of the car beneath its flooring and having loose connection as at 26 with the upper corner of a segmental-shaped swinging plate 27, the lower portion of which is formed with a balancing weight 28, and this plate is mounted for swinging movement upon a pivot 29, projecting centrally from the front cross beam of the wheel truck 9, of the car.

Near the rear extremity of the operating rod or link 25, and secured thereto is a depending rearwardly inclined leg or shoe 30 which is normally maintained out of the path of the switch throwing bar or arm 17, and is adapted to be thrown into the path of the latter upon the manipulation of the operating link or rod 25, by a motorman or other operator on the car.

Near the forward extremity of the operating rod or link 25, integral with the same and rising therefrom is a hook nose 31, to which latter is detachably swiveled a foot treadle or lever 32, rising above the platform or flooring of the car 8, and working through a suitable slot contained in the latter, and this foot treadle or lever is adapted to be manipulated by the foot of a motorman to bring the leg or shoe into proper position for moving the switch throwing arm or bar 17, laterally with respect to the main track for opening or closing the siding or branch tracks when the car is approaching the same.

In operation and when it is desired to move the switch throwing bar or arm 17, it is necessary for the motorman or other operator to press upon the foot treadle or lever 32, in a direction either to the right or left and in this manner the leg or shoe 30, will be moved into a position for engaging the switch throwing arm or bar 17, so that the same may be actuated for automatically shifting the switch tongue or point 13, for opening or closing the siding or branch track.

It is of course to be understood that the switch operating mechanism carried by the car is adapted to be mounted at opposite ends thereof, and the detachable foot treadle or lever 32 is used to operate both of the said mechanisms singly according to the direction of travel of the car.

From the foregoing, the construction and operation of the invention will be clearly apparent, without requiring a more extended explanation and therefore the same has been omitted.

What is claimed is:—

1. The combination with a switch throwing mechanism arranged within a track bed, of a swinging plate pivoted to the truck frame of a car and being adapted for arcuate movement transversely with respect to the track bed, mechanism for moving said plate, and means movable into the path of the switch throwing mechanism and operated by the last named mechanism and being normally operated by the plate.

2. A switch operating device, comprising a yoke secured to and depending from the body of a car, a member mounted for rocking movement in the yoke, a pivotal plate mounted for arcuate movement upon the truck frame of a car, a rod loosely connected to the plate and swiveled to the said member and being held normally elevated by the plate, a leg depending from said rod and movable into the path of a switch throwing mechanism located in a track bed, and a foot treadle having connection with said rod for actuating the same.

3. The combination with switch throwing mechanism located in a track bed, of a rocking member pivoted below the body of a car, a weighted segment pivoted to the truck frame of a car, connection between the segment and the member to permit arcuate swinging movement of said segment, a shoe carried by said connection and being adapted to move into the path of the switch throwing mechanism, the said shoe being held normally elevated by said segment and means actuating the connection to move the segment for bringing the shoe into operative position.

4. The combination with a car having a wheeled truck frame, of a yoke secured to and depending from the car in advance of its truck frame, a weighted segment pivoted centrally to the truck frame and adapted for arcuate movement transversely of a track bed, a rocking member pivoted in the yoke, a rod having one end swiveled to said member and its opposite end loosely connected to the segment, a shoe depending from said rod and normally elevated by said segment, the said shoe being adapted to actuate a switch throwing mechanism, and manually operable means detachably connected to the rod for actuating the same.

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

JOSEPH R. RITTER.

Witnesses:

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S. W. KORTUM.