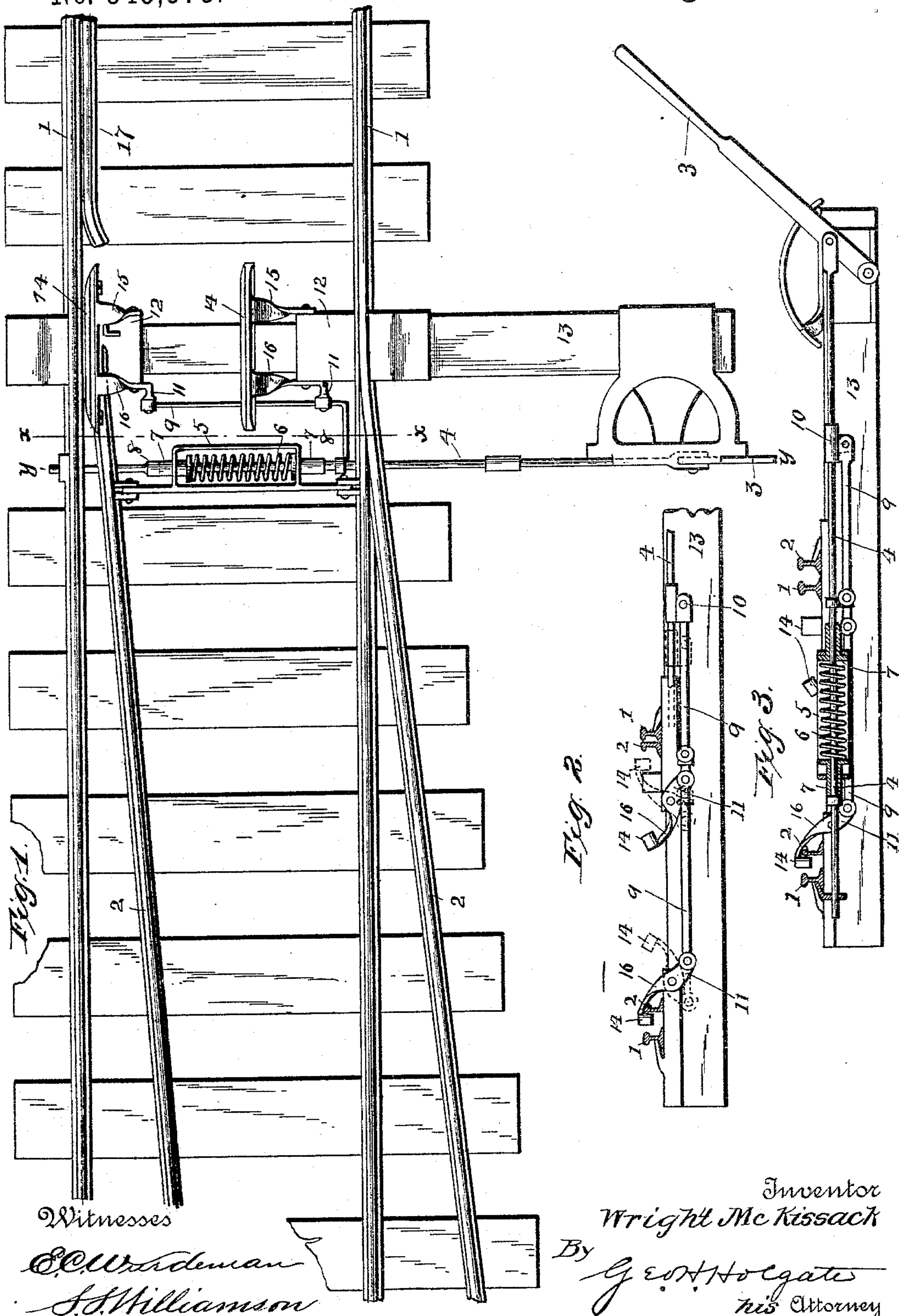


(No Model.)

W. McKISSACK.
GUARD FOR RAILROAD SWITCHES.

No. 545,373.

Patented Aug. 27, 1895.



Witnesses

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UNITED STATES PATENT OFFICE.

WRIGHT McKISSACK, OF BRIDGEPORT, ALABAMA.

GUARD FOR RAILROAD-SWITCHES.

SPECIFICATION forming part of Letters Patent No. 545,373, dated August 27, 1895.

Application filed March 15, 1895. Serial No. 541,919. (No model.)

To all whom it may concern:

Be it known that I, WRIGHT McKISSACK, a citizen of the United States, residing at Bridgeport, in the county of Jackson and State of Alabama, have invented certain new and useful Improvements in Guards for Railroad-Switches, of which the following is a specification.

My invention relates to a new and useful improvement in a guard for the protection of the points of railroad-switch rails and is used in conjunction with the ordinary stationary guard-rail and is adapted to operate automatically from side to side upon the operation of the switch.

With this end in view my invention consists in certain details of construction and combination of elements hereinafter set forth, and then specifically designated by the claims.

In order that those skilled in the art to which my invention appertains may fully understand how to make and use the same, I will proceed to describe its construction and operation in detail, referring by number to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a plan view of the main track and switch with my improvement adapted thereto; Fig. 2, a section at the line $x x$ of Fig. 1, and Fig. 3 a similar view at the line $y y$.

Like numbers denote like parts in the several figures of the drawings.

1 represents the rails of the main track; and 2, the switch-rails, of the usual construction, which are operated by the ordinary lever 3 and rod 4.

5 is a rectangular yoke through which the rod 4 passes longitudinally, and around this rod, within said yoke, is coiled a spring 6, having an end-thrust against the flanges of sleeves 7, which latter slide upon the rod 4 and abut against enlargements 8 of said rod for the purpose of holding the movable rails in spring contact with the stationary rails.

9 is a pitman pivoted at 10 to the rod 4, and this pitman is connected to the cranks 11, which latter are in turn pivoted to suitable plates 12, secured upon the switch-tie 13.

14 represents guard-rails supported by swinging levers 15 and 16, the latter forming extensions of the pitman 11, so that any movement of said pitman will be imparted to these

guard-rails for the purpose next to be explained.

From the foregoing description the operation of my improvement will be obviously as follows: When the switch is thrown by the operation of the lever 3, the jointed pitman 9 will be caused to swing the guard-rails 14, as before described, and the one next the open movable rail will be caused to take its position between said open movable rail and the stationary rail, forcing the wheels of moving train from and thus protecting the point of the opposite movable rail even though the switch had failed to close the same by an inch or more, caused by a stone, ice, or any other obstruction. By a reversed movement of the lever 3, carrying the movable rails in the opposite direction, the swinging guard-rails will be reversed in their movement and the one before in position to protect the movable rail will be swung out of position therewith and the other swung into proper relative position with the opposite movable rail, which two positions are clearly illustrated by full and dotted lines in Fig. 2. The swinging guard-rails 14 are preferably secured by bolts to the levers 15 and 16, and to the sides, coming in contact with the wheels of cars, are removable and interchangeable bars of steel attached thereto, so that they may be removed when worn and others substituted at will.

17 represents an ordinary guard-rail, such as now in common use, and in connection with my improvement serves to align the passing wheels in order to reduce the shock that would be occasioned to the swinging guard-rails were said wheels to have a free lateral movement, whereby they might strike the swinging guard-rails more abruptly. While I have shown but one of these stationary guard-rails, it is obvious that two may be used.

It follows from what has been said that the points of the movable switch-rails can in no case become worn on their inner surface. Thereby a perfect fit against the stationary rails of the track is at all times had, which is not the case when the ordinary construction of switch is used, since the constant striking and abrasion of said points on their inner surface by the passing wheels cause said points to become flared and prevent a perfect fit against the stationary rails, thus destroying

their usefulness. At the same time, in case the movable points are obstructed by snow, ice, or other obstacles from reaching their proper position, the wheels are forced upon the track desired and accidents thus avoided.

Having thus fully described my invention, what I claim as new and useful is—

1. In a guard for switches, the combination with the stationary and movable rails, the latter adapted to be operated by suitable switch mechanism, a pair of guards supported by swinging levers connected with a pitman by which motion is imparted to the guards and means for operating the pitman and the movable rails as and for the purpose described.

2. In a guard for switches, the combination with the stationary and movable rails, the latter adapted to be operated by suitable switch

mechanism, a pair of swinging guards, a pitman operating the guards and a spring pressed rod operating the pitman and movable rail as and for the purpose described.

3. The herein described combination of the stationary rails, movable rails, the rod 4, lever 3, frame 5, spring 6, pitman 9, levers 15 and 16, and guard rails 14, bolted thereto, all arranged to operate as shown and for the purpose described.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

WRIGHT McKISSACK.

Witnesses:

E. L. C. WARD,
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