

930,708.

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ANTICREEPING DEVICE FOR SPRING-FROGS.

No. 930,708.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE W. WHITEMAN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Anticreeping Device for Spring-Frogs, of which the following is a specification.

My present invention consists of a novel construction of an anti-creeping device for spring frogs, which is adapted to keep the loose rail in position and prevent it from creeping ahead and exposing the point which would allow the flange of the wheel to get in the wrong side of the point.

It further consists of a novel construction of an anti-creeping device, which, in the present instance, for purposes of illustration, I have shown as having one portion thereof fixedly secured to the loose rail, while the other portion thereof is fixedly secured to the fixed rail, means being also provided for exerting a yielding pressure against the loose rail, whereby the same is maintained normally in its proper position and is automatically returned to its normal position when moved therefrom.

It further consists of a novel construction of an anti-creeping device for spring frogs, comprising a plurality of members fixed to each rail, said members being correlated and arranged in such a manner that the anti-creeping device will have the proper effect upon the loose rail at all times and resilient means being employed for exerting a lateral pressure against the loose rail at an angle to the base of the rail in order to prevent undue lifting of the loose rail when the train is passing through the frog.

It further consists of a novel construction of an anti-creeping device wherein a filler block is fixedly secured to one of the fixed rails and a plate or angle iron having an inclined face is fixedly secured to the loose rail in such a manner that a portion of said inclined face is always in engagement with the filler block, thereby preventing the creeping of the loose rail so that such rail always has the same relation with respect to the point of the frog.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

For the purpose of illustrating my inven-

tion, I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a plan view of a spring frog showing an anti-creeping device embodying my invention in conjunction therewith. Fig. 2 represents a plan view on an enlarged scale of a spring frog showing my anti-creeping device. Fig. 3 represents a section on line x-x, Fig. 1. Fig. 4 represents a perspective view of a portion of the anti-creeping device in detached position.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—in a co-pending application Serial No. 497,602 filed on even date with the present application I have described and broadly claimed a novel construction of a cushioning device for the loose rail of spring frogs, wherein means is provided for exerting a yielding pressure against the loose rail at an angle to the base thereof and in my present invention I have preferred to show this type of a cushioning device in conjunction therewith but have deemed it unnecessary in the present application to give a detailed description of the construction thereof, since the same *per se* forms no part of my present invention, and since reference may be had to my co-pending application, above referred to, for a detailed description and operation thereof. It is of course to be understood that other types of cushioning devices may be employed.

In my present device the spring frog consists of the rails 1, 2 and 3, which are fixedly secured in position in any suitable manner and the loose rail 4, which is movably mounted in any suitable manner.

5 designates the point of the frog.

6 designates a filler block intermediate the web of the rail 1 and the rail 2 and in proximity to the point 5 of the frog.

7 designates suitable fastening devices, such as bolts or their equivalents, which pass

through the rails 1 and 2 and through the filler block 6, said bolts being provided with suitable washers 8 and nuts 9, whereby the parts are properly secured in their assembled position.

The filler block 6 is provided at one end with an inclined contact face 10, it being seen from Figs. 1 and 2 that the filler block 6 preferably extends in such a manner that the inclined face 10 is beyond the point 5 of the frog.

12 designates a plate or bar provided with the extensions 13 and 14, which latter are provided with apertures 15 whereby said plate or bar may be fixedly secured to the loose rail 4 by means of suitable fastening devices 16. The member 12 is deflected upon itself in the present instance to form an extension 17 provided with an inclined contact face 18, it being noted that the forward end of the extension 17 is beveled or rounded, as is indicated at 19.

20 designates a plate fixedly supported in any suitable manner and to which the rails 1 2 and 3 are rigidly secured and on which the loose rail 4 is laterally movable, said loose rail 4 being provided with a filler block 21 against which is adapted to abut a spring actuated plunger 22, which is carried in a casing 23, secured to the plate 20 in any suitable manner, as will be readily understood by reference to my prior application, to which I have hereinbefore referred. The spring actuated plunger 22 exerts a yielding pressure against the loose rail 4, whereby when said rail is moved against the tension of the spring actuated plunger 22, the latter will return the loose rail to its normal position after the train has passed through the frog.

The operation of my novel device will now be readily understood by those skilled in this art, since it will be apparent that owing to the engagement of the extension 17 of the member 12, fixedly secured to the loose rail 4, with the inclined face 10 of the filler block 6 which latter is rigidly secured to the fixed rail 1, that the creeping of the loose rail 4 will be positively prevented so that the point 5 of the frog will always have the proper position with respect to the loose rail 4, it being seen that the rail 4 is bent or deflected, as indicated at 24.

Owing to the inclined faces of the members 12 and 6, the loose rail 4 will always have the same relative longitudinal position during its lateral movement, so that there will be no binding of the members 12 and 6, during such lateral movement of the loose rail 4, it being understood that when the loose rail 4 is being moved toward the casing 23, the spring actuated plunger 22 automatically returns the loose rail to its normal position.

In order that the extension 17 may have a maximum movement with respect to the end

of the filler block 6, the same may be recessed, if desired, as indicated at 25, the effect of which is evident.

In order to more clearly indicate the feature of the inclined faces of the members 12 and 6 I have shown a right angle, as indicated by dotted lines and arrows in Fig. 2, it being of course understood that the amount of inclination given to the members 12 and 6 respectively may be varied, as desired, in accordance with the requirements met with in practice.

It is to be understood that where in the claims I refer to a block I intend the term "block" to be construed broadly as covering a member of any desired construction, which is fixedly secured with respect to the rails 1 and 2.

It will now be apparent that I have devised a novel and useful construction of an anti-creeping device for spring frogs, which embodies the features of advantage enumerated as desirable in the statement of invention and the foregoing description, and while I have in the present instance shown and described a preferred embodiment thereof, which in practice will give satisfactory and advantageous results, it is to be understood that the same is susceptible of modifications in various particulars without departing from the spirit and scope of the invention or sacrificing any of its advantages.

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

1. In an anti-creeping device for spring frogs, the combination with the fixed rail, and loose rail of the frog, of a filler block secured to the fixed rail, and means carried by said loose rail and always in engagement with said block to prevent longitudinal movement of the loose rail.

2. In an anti-creeping device for spring frogs, the combination with the fixed rails and the loose rail of the frog, of a block having an inclined end and secured to the fixed rail, and a member fixed to the loose rail and engaging said inclined end to prevent longitudinal movement of the loose rail.

3. In an anti-creeping device for spring frogs, the combination with the fixed rails and the loose rail of the frog, of a block fixed to one of the fixed rails and having an inclined contact face, and a bar fixed to the loose rail and having an inclined contact face co-acting with the contact face of said block.

4. In an anti-creeping device for spring frogs, the combination with the fixed rails and the loose rail of the frog, of a block fixed to the fixed rail and having an inclined contact face, and a bar fixed to the loose rail and having an inclined contact face co-acting with the contact face of said block, in combination with a cushioning device for the loose rail.

5. In an anti-creeping device for spring

5 frogs, the combination with the point of the frog and the loose rail, of a device rigidly secured against longitudinal movement, and means carried by the loose rail and co-acting with said device to prevent relative longitudinal movement of the loose rail and the point of the frog.

10 6. In an anti-creeping device for spring frogs, the combination with the fixed rails and the loose rail, of a block secured to one of the fixed rails and a bar fixed to the loose rail and having an extension always in engagement with said block to prevent longitudinal movement of the loose rail.

15 7. In an anti-creeping device for spring frogs, the combination with the fixed rails and the loose rail, of a block secured to one of the fixed rails, a bar fixed to the loose rail and having an extension always in engagement with said block to prevent longitudinal

movement of the loose rail, in combination with a plate to which the fixed rails are secured and on which the loose rail is movable, and a cushioning device fixedly supported and co-acting with the loose rail.

25 8. In an anti-creeping device for spring frogs, the combination with the fixed rails and the loose rail, of a block secured to one of the fixed rails, a bar fixed to the loose rail and having an extension provided with an inclined contact face always in engagement with said block to prevent longitudinal movement of the loose rail, in combination with yielding means for moving the loose rail laterally and maintaining the same in 35 normal position.

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Witnesses:

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