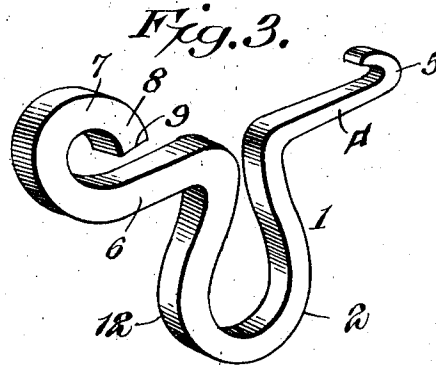
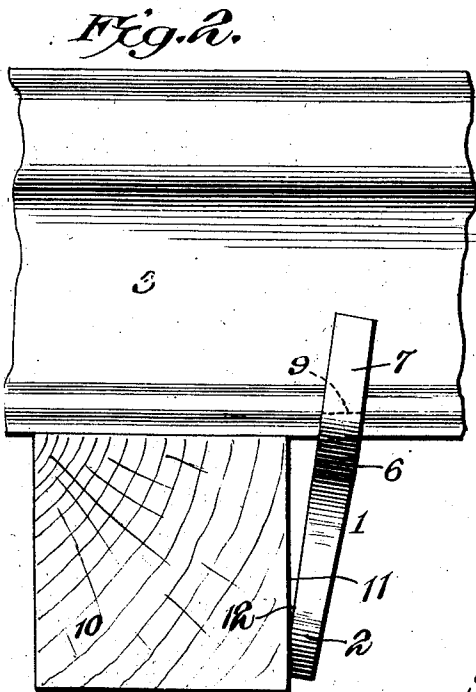
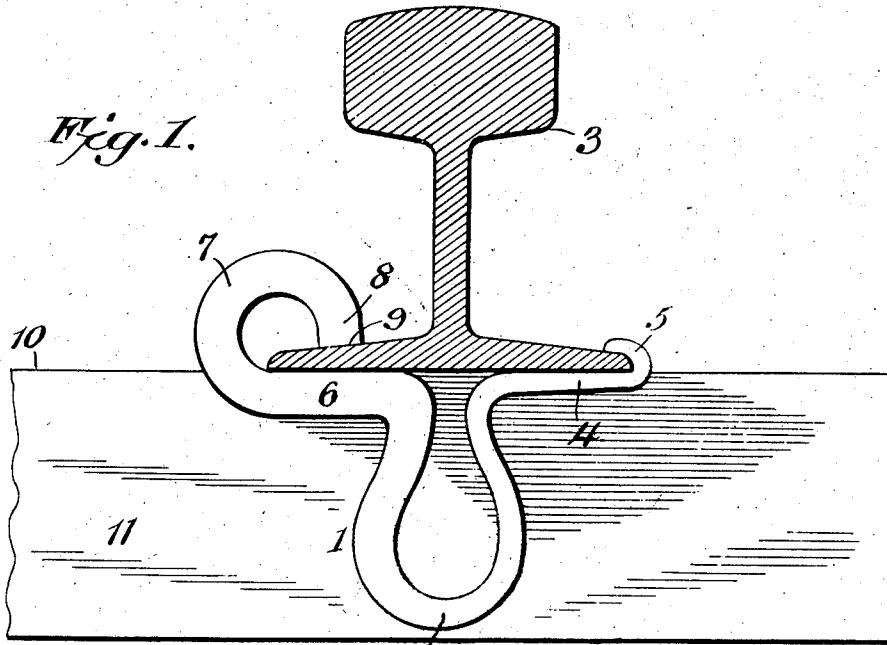


S. E. NELSON.
 ANTICREEPER FOR RAILS.
 APPLICATION FILED MAR. 31, 1910.

1,003,058.

Patented Sept. 12, 1911.



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UNITED STATES PATENT OFFICE.

SANTA E. NELSON, OF KENNETT, CALIFORNIA.

ANTICREEPER FOR RAILS.

1,003,058.

Specification of Letters Patent.

Patented Sept. 12, 1911.

Continuation of application Serial No. 502,565, filed June 16, 1909. This application filed March 31, 1910.
Serial No. 552,680.

To all whom it may concern:

Be it known that I, SANTA E. NELSON, a citizen of the United States, residing at Kennett, in the county of Shasta and State of California, have invented a new and useful Anticreeper for Rails, of which the following is a specification.

The invention relates to improvements in anti-creeper for rails, and is a continuation of a former application, filed June 16, 1909, Serial No. 502,565, for a similar device.

The object of the present invention is to improve the construction of anti-creeper for rails, and to provide a simple, inexpensive and efficient anti-creeper of great strength and durability, capable of firmly gripping a rail and of engaging a cross tie for preventing rails from sliding downward on a grade.

A further object of the invention is to provide a boltless and wedgeless anti-creeper, adapted to be easily made and capable of being readily applied without change to rails of different sizes.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a side elevation of an anti-creeper, constructed in accordance with this invention and shown applied to a rail, the latter being in section. Fig. 2 is an end elevation of the same. Fig. 3 is a perspective view of the anti-creeper detached. Fig. 4 is a similar view, showing another form of the invention on a reduced scale.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

In the embodiment of the invention illustrated in Figs. 1 to 3 inclusive, the anti-creeper 1, which is designed to be constructed of spring steel, or other suitable material, consists of a clamp, which through its resiliency, is adapted to engage rails of different sizes. The anti-creeper is formed

from a single strip of metal, approximately rectangular in cross section bent intermediate of its ends to provide a depending approximately U-shaped loop 2, which is located beneath the rail 3 centrally of the same below the web thereof, as clearly shown in Fig. 1 of the drawing. The metal is extended horizontally at one side of the loop 2 to provide an arm 4, fitting against the lower face of the adjacent bottom flange of the rail and having an upwardly extending hook-shaped terminal 5, which is engaged with the side edge of the adjacent bottom flange. The hook-shaped terminal 5 is slightly curved, as shown, to conform to the configuration of the upper face of the engaged edge of the bottom flange of the rail. The strip of metal of which the anti-creeper is constructed, is extended outward horizontally from the opposite side of the depending U-shaped loop to form a rail engaging arm 6, which has a horizontal upper face to grip the lower face of the bottom flange at the opposite side of the rail from that engaged by the hook-shaped terminal 5. The terminal portion of the strip at the arm 6 is bent into approximately circular shape, forming a spring loop 7 having a downwardly extending terminal portion 8 at the inner side, located at a point directly above the horizontal rail gripping arm 6, and presenting a horizontal end face to the rail and cooperating therewith to clamp the interposed bottom flange. The end face 9 of the terminal portion 8 corresponds with the plane of the upper face of the bottom flange of the rail and fits against the same presenting its entire area to the rail. The loop 7 by extending upwardly from the outer end of the arm 6 and curving inwardly over the bottom flange of the rail and downwardly to the same, as clearly shown in Fig. 1 of the drawing, is adapted to cooperate with the horizontal arm 6 in firmly gripping the base of the rail.

The anti-creeper, which engages the bottom of the rail 3 at opposite sides thereof, is designed for use on grades, and is adapted to be arranged above a cross tie 10 on the said grade. It is set at an inclination, the depending lower loop extending downwardly and arranged at an acute angle to the adjacent face 11 of the cross tie. The anti-creeper is beveled at the inner engaging face or side 12 of the depending approximately

U-shaped loop at the bottom thereof, and it thereby presents an engaging face, which fits squarely against the cross tie, as clearly shown in Fig. 2 of the drawing. The said tie-engaging face is arranged at an obtuse angle to the adjacent side face of the depending loop. The rail-engaging faces fit flat against the bottom flanges of the rail when the device is placed in position, and any tendency of the rail to slip or slide causes the depending loop to approach nearer a perpendicular position, which results in an increased clamping action of the anti-creeper on the rail, and the latter is thereby firmly held in place with respect to the cross tie. It will thus be seen that when the device is subjected to the strain incident to the creeping of the rail, it is caused to grip the rail more firmly and that the gripping action increases with the force of the said strain.

In applying the device to a rail, one of the bottom flanges thereof is introduced between the engaging end of the loop 7 and the horizontal arm 6 at that side of the depending loop. The other laterally extending arm is engaged with the bottom flange of the rail at the opposite side thereof by means of a suitable tool (not shown), which operation spreads the depending loop and places the device under tension. The device may be readily removed from the rail by first disengaging the hook-shaped terminal 5 of the arm 4 from the bottom flange. The device may then be easily detached without the application of any force. When the anti-rail creeper is made of heavy metal, it may be tapered from the bottom of the depending loop to the outer engaged terminal 5 of the arm 4. This will render the anti-rail creeper sufficiently resilient to enable it to be easily applied to a rail.

In Fig. 4 of the drawing is illustrated another embodiment of the invention having a depending approximately U-shaped loop 13, designed to be located centrally beneath the rail, similar to the loop 2 heretofore described. The metal is extended at one side of the loop 13 to form a horizontal arm 14, having a hook-shaped terminal 15 to engage the base of the rail at the outer edge of one of the bottom flanges thereof. The metal is extended at the opposite side of the loop 13 and bent back on itself to provide a horizontally disposed U-shaped loop 16, which is arranged to embrace the other bottom flange of the rail. The terminal portion of the strip at this end of the clamp is bent to form an upwardly extending approximately U-shaped loop 17, the outer side 18 of which presents a terminal point 19 to the upper face of the flange of the rail. The anti-creeper engages the bottom of the rail at opposite sides in the manner heretofore described, and any sliding or creeping of the

rail carries the depending loop 13 in a direction of the cross tie, which movement is resisted by the outer side 18 of the upwardly extending loop 17. The side 18 is caused to bite the rail and embed itself in the upper face of the bottom flange thereby effectually resisting the downward creeping of the rail and increasing the clamping action or force with which the anti-creeper engages the rail.

In each of the forms of the invention, the opposite rail engaging portions, which extend from the sides of the depending loop, are maintained in engagement with the base of a rail solely through the resiliency of the said loop.

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

1. An anti-creeper for rails consisting of a single continuous strip of resilient metal and comprising a depending loop designed to be located beneath a rail, and engaging portions extending from the sides of the said loop and arranged to grip the base of a rail at opposite sides thereof and maintained in engagement solely by the spring action of the said loop.

2. An anti-creeper for rails consisting of a single continuous strip of resilient metal and comprising a depending loop designed to be located beneath a rail, and engaging portions extending from the sides of the said loop and arranged to grip the base of a rail at opposite sides thereof and maintained in engagement solely by the spring action of the said loop, the latter being arranged to engage a cross tie and set at an angle to the same, whereby the creeping of the rail will through the engagement of the anti-creeper with the cross tie cause the anti-creeper to increase its gripping action on the said rail.

3. An anti-creeper for rails consisting of a single continuous strip of resilient metal and comprising a depending loop designed to be arranged beneath a rail, and opposite engaging portions extending from the sides of the loop and maintained in engagement with the rail solely through the resiliency of the loop, the latter being set at an inclination and arranged to engage a cross tie at an angle to the face thereof, the lower portion of the loop being beveled to present a flat approximately vertical face to the said cross tie.

4. An anti-creeper for rails consisting of a single strip of resilient metal and comprising a depending loop designed to be located beneath a rail, and opposite rail engaging portions extending from the sides of the loop and maintained in engagement with the rail solely through the resiliency of the loop, the metal at one side of the device being tapered from the bottom of

the loop to the terminal of the engaging portion of such side.

5. An anti-creeper for rails consisting of a continuous strip of resilient material and comprising a depending loop, an arm extending from one side of the loop and provided with means for engaging one of the bottom flanges of a rail, and a rail engaging loop connected with the other side of the depending loop and extending above the other bottom flange of the rail and downward to the same and having a terminal portion bearing against the rail.

6. An anti-creeper for rails consisting of a resilient clamp and comprising a depending loop arranged to engage a cross tie, an arm extending from one side of the loop and arranged to engage the lower face of the rail, a loop connected with the outer end of the arm and extending above the base of the rail and having a terminal portion bearing against the same, and means connected with the other side of the loop for engaging the rail.

7. An anti-creeper for rails consisting of a resilient clamp and comprising a depending loop arranged to engage a cross tie, an arm extending from one side of the loop and arranged to engage the lower face of the rail, an approximately circular loop extending upward from the outer end of the arm and having a terminal portion bearing against the base of the rail, and means connected with the opposite side of the depending loop for engaging the rail.

8. An anti-creeper for rails consisting of a resilient clamp and comprising a depending loop arranged to engage a cross tie, an arm extending from one side of the loop and arranged to engage the lower face of

the rail, a loop connected with the outer end of the said arm and extending upwardly and inwardly above the base of the rail and having a terminal portion engaging the same, the engaging face of the terminal portion being arranged at the same angle as the engaged face of the rail, and means located at the other side of the depending loop for engaging the rail.

9. An anti-creeper for rails consisting of a resilient clamp set at an inclination to the vertical and comprising a depending loop arranged to engage the cross tie, an arm extending from one side of the loop and provided with means for engaging one of the bottom flanges of a rail, and a rail engaging loop extending from the other side of the depending loop and arranged to embrace the other bottom flange of the rail and having a terminal portion arranged to be forced against the rail by the movement of the clamp toward the perpendicular position.

10. An anti-creeper for rails consisting of a resilient clamp comprising a depending loop arranged to engage a cross tie, arms extending from opposite sides of the loop and arranged to bear against the lower face of the rail, one of the arms being provided with a terminal engaging hook, and a spring loop connected with the other arm and extending above the base of the rail and having a terminal portion engaging the same.

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

SANTA E. NELSON.

Witnesses:

F. L. NELSON,
W. F. LOOMIS.