

A. T. KRAMER.
RAIL ANTICREEPING DEVICE.
APPLICATION FILED OCT. 18, 1911.

1,014,155.

Patented Jan. 9, 1912

Fig. 1.

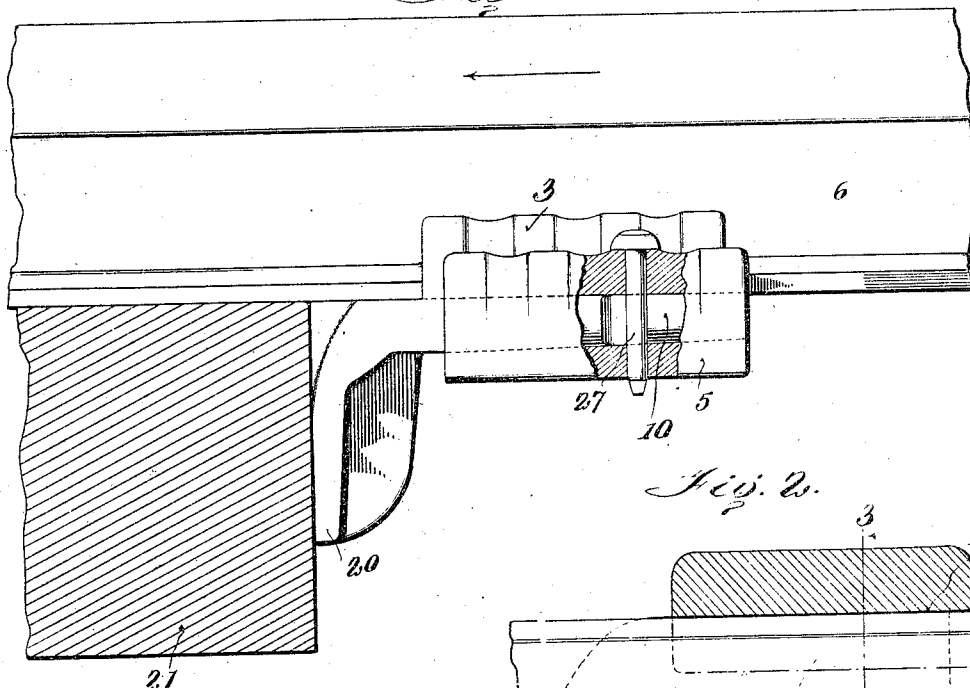


Fig. 2.

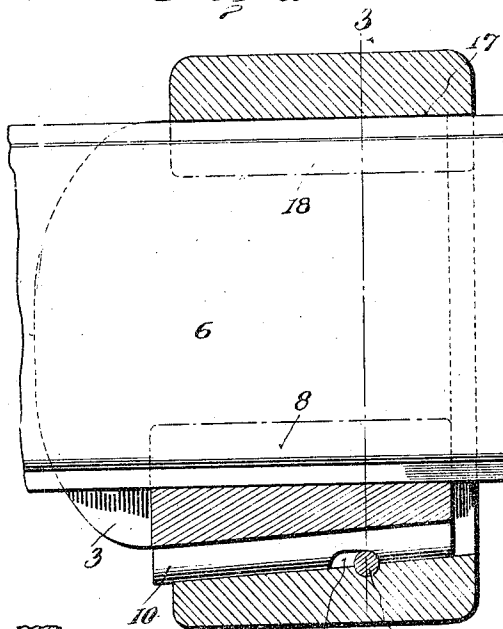
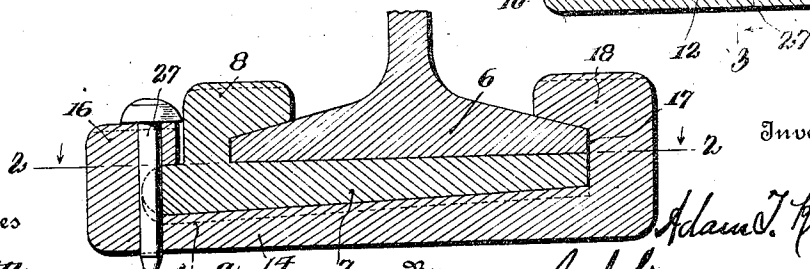
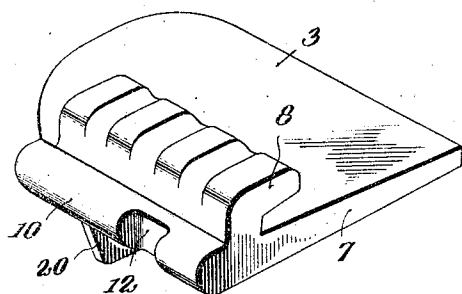


Fig. 4.



Witnesses

Walter Murray,
H. P. Roberts,

Fig. 3.

By

Adam T. Kramer,
Ed. L. Mason,
Inventor
Attorney

UNITED STATES PATENT OFFICE.

ADAM T. KRAMER, OF BLUFFTON, MINNESOTA.

RAIL-ANTICREEPING DEVICE.

1,014,155.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ADAM T. KRAMER, a citizen of the United States, residing at Bluffton, in the county of Ottertail and State of Minnesota, have invented certain new and useful Improvements in Rail-Anti-creeper Devices, of which the following is a specification.

This invention relates to fasteners for rail-way rails, and more particularly to an anti-creeper device for preventing the longitudinal movement of rails at the ends of inclines, or at track crossings.

The invention has for its objects to produce a simple and efficient fastener which is easily applied to the rail, and which will act to grip the rail both at its lateral edges in a horizontal direction, and in a vertical direction, and at the same time maintain an even bearing against the base of the rail.

Another object of the invention is to provide a device of the character referred to which will automatically tighten its grip upon the rail as the rail contracts, instead of loosening its grip as in devices of this same character heretofore employed.

Other objects of the invention will be made to appear hereinafter.

In the drawings: Figure 1 shows a side elevation, partly in section, of a device embodying the present invention, in position on a rail, with a tie shown in section; Fig. 2 is a sectional plan view of the fastening device shown in Fig. 1, on the line 2-2, Fig. 3; Fig. 3 is a vertical transverse section on the line 3-3, Fig. 2; and Fig. 4 is a perspective view of the wedge member.

As represented herein, the anti-creeper comprises the wedge member 3, and the co-operative supporting member 5, which are respectively arranged to embrace the base of the rail and to be forced into gripping contact with said base, and each other.

The wedge member 3 is composed of a base portion 7 which is of a width to extend beneath the rail base 6, for the entire width thereof and is provided near its left-hand edge, as viewed in Figs. 3 and 4, with an upwardly, and inwardly extending rail-engaging flange 8. The base 7 extends slightly beyond the flange 8 terminating in a rounded rib 10 which is tapered or diminished in thickness from front to rear in a vertical direction, as shown in Figs. 1 and 3, and is also inclined to the axis of the rail from front to rear in a horizontal direction

to form a wedge, as shown in Fig. 2. The lower face of the base 7 has a slight upward inclination from its left-hand edge to its right-hand edge, as shown in Figs. 3 and 4, and the front of said base is provided with a downwardly extending abutment 20 which bears against the tie 21. A longitudinally elongated recess 12 is formed in the rib 10 as shown for a purpose to be explained hereinafter.

The supporting member or shell 5 is composed of a base portion 14 which receives the base 7 of the wedge member, and is inclined laterally from left to right, as seen in Fig. 3, to correspond with a similar inclination on the base 7, and also has an upward inclination from the front edge of the member toward its rear, as indicated by the dotted line 14^a. The member 5 has at one side edge an upwardly and inwardly directed flange 16 which is shaped to fit over the rib 10, and has aligned perforations to receive a locking pin 27 which also passes through the recess 12 in member 3. The opposite side edge of the member 5 has a vertical wall 17, and an inwardly extending flange 18 which engages over the edge of the rail base, the space between that portion of this flange which engages the rail and the underlying face of the base 14 being filled by the edge of the base 7 and the edge of the rail base 6, and being tapered from front to rear, as indicated by the dotted line 14^a.

In order to assemble the parts of the anti-creeper, the flange 8 of the wedge member 3 is hooked over one side of a rail base and the abutment 20 positioned against the face of a tie 21. The supporting member 5 is then slid in position along the rail with its flange 18 over the opposite edge of the rail base, and until the groove inside the flange 16 passes over the rib 10, said rib and groove cooperating to draw tightly together the members 3 and 5 in a lateral direction and thereby, through flanges 8 and 18, and wall 17, gripping the side edges of the rail base between them. By the same operation the relative longitudinal movement of the inclined contacting surfaces on the bases 7 and 14 will effect a vertical wedging action on the edge of the rail base, so that a double wedge is formed, pressing on the edge of the rail and on the bottom of the rail. When the parts have been driven together in position on the rail, any tendency of the

rail to "creep" or move on its bed in the
 direction of the arrow (Fig. 1) will tend to
 increase the tightness of the grip on the rail,
 and thus effectually prevent its longitudinal
 5 movement. When the parts have been posi-
 tioned as described, the locking pin 27 is
 driven into place, there being in practice a
 slight overlap of the member 5 beyond the
 member 3 at the rear and the pin occupying
 10 the rear end of the recess 12, as shown in
 Fig. 2, but acting frictionally to maintain
 the parts tightly in this position under ordi-
 nary conditions. In case the rail should
 contract and shorten faster than the mal-
 15 leable iron shell 5, however, the shell will
 be moved by the contracting rail a farther
 distance over the wedge member 3, carrying
 with it the pin 27 which will then slip along
 the unoccupied portion of the recess 12
 20 shown in front of the pin in Figs. 1 and 2.
 By this means, the shortening of the rail as
 it contracts is applied for automatically
 tightening the wedging members, and the
 parts of my rail anchor will thus always be
 25 maintained in gripping contact with the
 rail, notwithstanding variations in tempera-
 ture.

Changes in the form, proportions, or
 minor details of construction may be made
 30 without departing from the spirit of my
 invention.

Having thus described my invention, what
 I claim as new and desire to secure by Let-
 ters Patent of the United States is:—

35 1. In a device of the class described, the
 combination with a wedge having a base to
 extend wholly beneath the rail base and a
 lateral flange to engage one edge of the rail,
 of a supporting member having flanges to
 40 fit over a rib on said wedge and the other
 edge of the rail, respectively, said parts hav-
 ing cooperating wedging surfaces arranged
 for gripping the rail vertically and hori-
 zontally.

45 2. In a device of the class described, the
 combination with a wedge having a base to
 extend wholly beneath the rail base, a
 lateral flange to engage one edge of the
 rail, an inclined rib beyond said flange, and

an abutment to engage a tie, of a supporting 50
 member having a base below the wedge base,
 a flange to engage the other edge of the
 rail, and a second flange to fit over said rib.

3. In a device of the class described, the
 combination with a wedge having a rail- 55
 supporting base having an inclined surface,
 a flange to engage one end of the rail, a tie
 abutment, and a tapering rib inclined hori-
 zontally of a supporting member having a
 cooperating inclined surface, and flanges to 60
 engage the other rail edge and said rib re-
 spectively, the parts being overlapped
 whereby when said parts are forced to-
 gether with a rail between them a gripping
 force will be applied both vertically and 65
 horizontally.

4. In a device of the class described, the
 combination with a wedge having a base,
 a rail-engaging flange and a tapering, in- 70
 clined rib provided with an elongated rec-
 cess, of a supporting member having a base,
 a rail-engaging flange, a flange having a
 tapering recess to fit said rib, and alined
 perforations, and a locking pin to engage
 said recess and perforations, whereby upon 75
 a contraction of the rail in excess of that of
 the supporting member the supporting
 member and wedge will be drawn more
 tightly into wedging engagement and rela-
 tive movement between said parts permitted 80
 by the elongated recess.

5. In an anti-creeper for rails, the combi-
 nation with the wedge member 3, having
 the base 7 formed with the lateral and lon- 85
 gitudinally inclined surface 14^a, the flange 8,
 tapering and inclined rib 10 having the rec-
 cess 12, and the abutment 20, of the support-
 ing member 5 having the base 14 formed to
 correspond with the surface 14^a, the flange
 18, the flange 16 having a recess to fit the 90
 rib 10, alined perforations, and the pin 27
 fitting said recess and perforations.

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

ADAM T. KRAMER.

Witnesses:

N. B. TYRRELL,
 J. M. DICKEY.