A. J. DINKLAGE.

ANTICREEPING DEVICE FOR RAILS.

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1,015,791.

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Fig. 5.

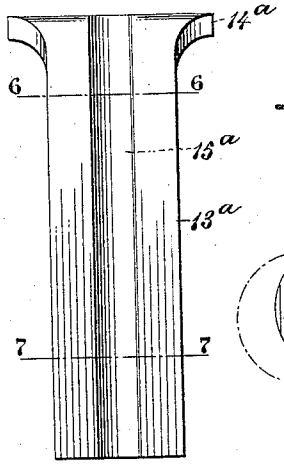


Fig. 1.

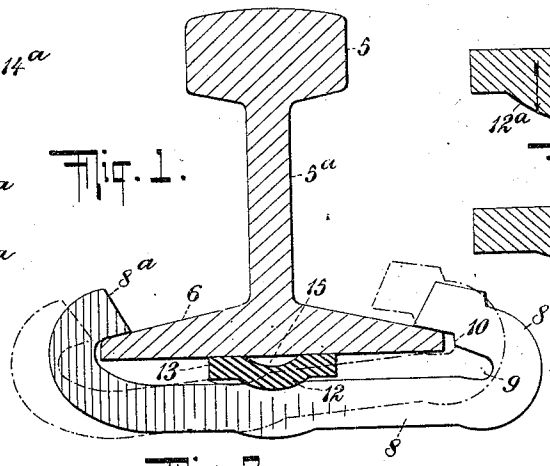


Fig. 6.

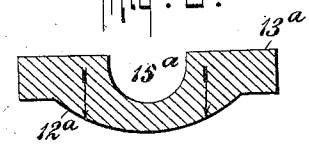


Fig. 7.

Fig. 2.

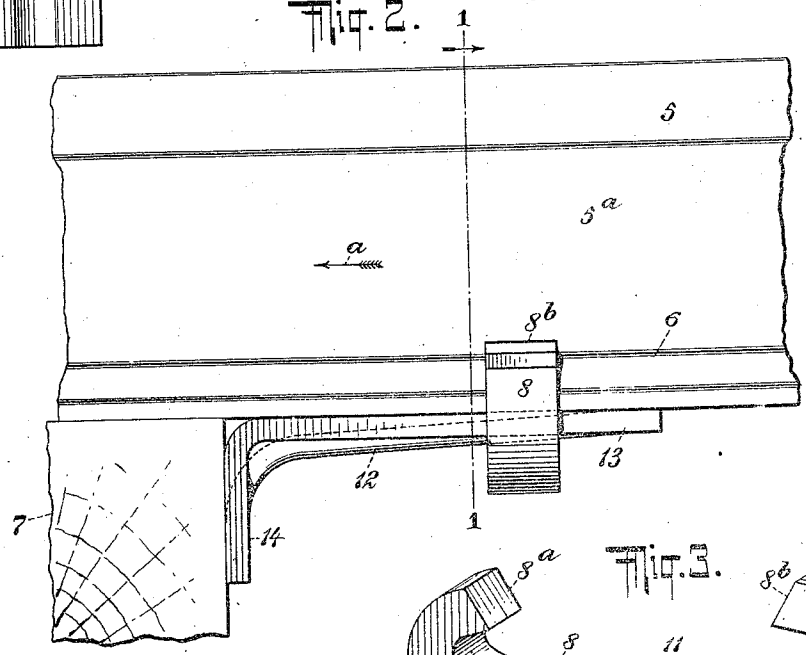


Fig. 3.

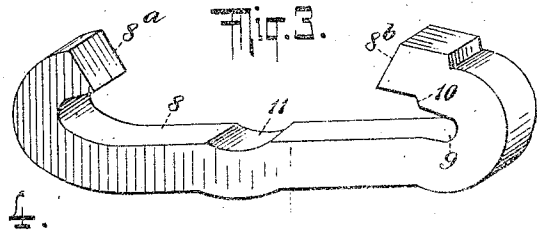
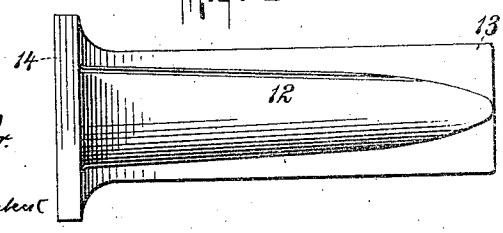


Fig. 4.



WITNESSES

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ANTICREEPING DEVICE FOR RAILS.

1,015,791. Specification of Letters Patent. Patented Jan. 30, 1912.

Application filed July 25, 1911. Serial No. 640,392.

To all whom it may concern:

Be it known that I, AUGUST J. DINKLAGE, a citizen of the United States, and resident of East Orange, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Anticreeping Devices for Rails, of which the following is a specification.

My invention relates to devices for preventing creeping or longitudinal movement of railroad rails occasioned for instance by the continuous recurrence of shocks at the joints and has for its object to provide such a device which while extremely simple in construction and easy of application, will be maximumly effective for the purpose intended.

A further object of my improvement is to so construct a device of this kind that it will automatically accommodate itself to any construction and will automatically assume the most advantageous and effective position to secure the best results.

It is also my intention to provide a structure which will not accidentally become laterally displaced and which will not become dislocated or loosened from continuous vibration of the rail due to any cause.

My invention will be fully described hereinafter and the features of novelty will be pointed out in the appended claims.

Reference is to be had to the accompanying drawings in which—

Figure 1 is a cross section on the line 1—1 of Fig. 2 of a railroad rail with my invention illustrated in full lines in operative position thereon and in dotted lines in the act of being applied; Fig. 2 is a side elevation thereof; Fig. 3 is a perspective view of the clamp or shoe; Fig. 4 is an inverted plan view of the wedge; Fig. 5 is a plan view of a slightly different form of wedge and Figs. 6 and 7 are sectional views thereof on an enlarged scale, substantially on the lines 6—6— and 7—7— of Fig. 5.

In the drawings 5 represents the usual rail provided with the customary flange or rail-base 6 and secured in position on ties 7 in the well known manner.

My improved anticreeping device comprises a shoe 8 adapted to embrace or fit over said rail-base 6 and having curved ends 8^a and 8^b which bear upon said rail-base as clearly shown by full lines in Fig. 1 of the drawings. The end 8^b is made somewhat longer than the end 8 so as to produce a relatively deep pocket 9 and is further provided with a shoulder 10 the purpose of which will appear more fully from the description hereinafter. A concave or curved recess 11 is formed on said shoe preferably at a point which when the parts are properly assembled is located in line with the web 5^a of the rail 5. This recess 11 serves to accommodate a convex projection 12 extending lengthwise of a wedge 13 and preferably tapered toward its one end as illustrated best in Fig. 4 of the drawings. The said wedge is preferably provided, at the end opposite to the tapered end of the projection 12 with a head 14 arranged to bear against a tie 7 or other stationary part of the track or road-bed as shown in Fig. 2. If desired the recess 11 may also be tapered in the same direction as is the projection 12 the taper of both recess and projection, when the parts are in operative position, being in a direction opposite to the direction in which the rail tends to move or creep.

In placing the parts of my improved anticreeping device in operative position the end 8^b of the shoe 8 is first slipped over the one edge of the rail base 6 and moved transversely thereof so that said edge will enter the pocket 9. This brings the end 8^a beyond the opposite edge of said rail-base and leaves the shoe free to be swung upwardly to bring said end 8^a above said rail-base. After this has been done the shoe is moved transversely in the opposite direction so as to engage the end 8^a with the one edge of the said rail-base and bring the shoulder 10 substantially adjacent to the opposite edge of said rail-base. This shoulder 10 prevents any accidental lateral displacement of the shoe and prevents its disconnection from the rail-base, it being understood that the distance between the shoulder 10 and the bend of the end 8^a is only slightly greater than the width of the rail base so that said base substantially fits between said shoulder 10 and said bend as clearly shown in Fig. 1 of the drawings. It is of course readily seen and understood that the distance between the ends 8^a and 8^b is less than the width of said rail base so that said ends overlap and bear upon said rail base when the parts are assembled. After the shoe has been thus fitted over the rail base the wedge 13 is placed against the lower surface of the base 6 with the head 14 thereof abutting against a tie 7 or any other stationary part

of the rail or road bed. The shoe 8 is now slipped over the free end of said wedge and forced home with the projection 12 in position in the recess 11. In this position of the parts any tendency of the rail to creep, which in the illustration would be in the direction of the arrow *a* in Fig. 2, will only serve to more securely wedge the parts together so that said creeping tendency will be effectually overcome and the rail held absolutely stationary.

It will readily be seen that as there is a slight space between the portions of the wedge adjacent to the projection 12 and the shoe that said wedge may have a rocking movement relatively to said shoe owing to the curved coöperating surfaces of the projection 12 and recess 11. As the shoe is forced home on the wedge, the said wedge will thus automatically adjust itself in the recess so that its upper surface will rest squarely against the lower surface of the rail-base and will frictionally engage it throughout a maximum area and therefore automatically assume a position of maximum efficiency whether the opposed surfaces of the rail base and shoe are absolutely parallel or not or whether the contacting surface of the wedge is true or not. It is thus unnecessary to carefully manufacture or position the parts to secure the desired results.

It is well known that the continuous vibration due for instance to passing traffic is transmitted downwardly through the web of the rail and is greatest at the point where the web and rail-base come together. In order to prevent this vibration from having any material effect on the anticreeping device I provide the upper surface of the wedge with a recess 15 which extends lengthwise or longitudinally thereof, and in Fig. 4 follows substantially the form of the projection 12. In operative position, therefore, the wedge engages the rail-base at points spaced from each other in a direction transverse of the rail as clearly shown in Fig. 1. With this construction the vibration above mentioned will pass downwardly through the web 5^a and will not be communicated directly to the wedge as would be the case if said wedge engaged said rail-base throughout, but will be dissipated and will have no effect or only a slight effect on said wedge. Accidental dislocation of the anticreeping device through vibration is thus entirely obviated and said device will always remain in the most efficient and effective position after having been adjusted in place.

In the form of my invention shown in Figs. 5, 6 and 7, the wedge 13^a and projection 12^a may be substantially the same as illustrated in Fig. 4. The difference in the form of wedge shown in Figs. 5, 6 and 7 over that shown in the remaining figures resides in providing a recess 15^a which instead of following the shape of the projection 12 is of substantially the same width throughout as shown best in Fig. 5. It will be seen that while said recess is of substantially the same width throughout, it increases in depth as it nears the head 14^a in the same manner as does the recess 15 in the form of wedge shown best in Fig. 4. By making said recess 15^a in the manner described a maximum amount of holding surface is provided on the wedge for engagement with the rail-base which surface is of substantially even proportions throughout and thus firmly maintains the said wedge against movement relatively to the rail. This structure has the further advantage that the compression strain produced as the wedge is forced home and occurring in the direction indicated by the arrows in Fig. 6 does not have a tendency to kink said wedge along a line extending centrally of the projection 12^a and thus move the portions of the wedge extending adjacent to said recess away from the rail-base. In other words no matter what degree of compression strain is exerted the large area of the surfaces on each side of said recess which engage the rail base are always maintained firmly and completely in contact with said base.

My invention thus provides a simple and effective device of the character described which may be readily and quickly applied or removed after the rail is in position and without disturbing said rail and which may cheaply and easily be manufactured. My improved device is also easily positioned or removed by unskilled labor.

Various changes in the specific construction shown and described may be made within the scope of the claims without departing from the spirit of my invention.

I claim:

1. An anticreeping device for railway-rails comprising a shoe arranged to fit over the rail-base, a wedge adapted for insertion between said shoe and said rail-base and coöperating means on said wedge and said shoe for permitting said wedge to rock transversely relatively to said shoe and adjust itself to a position of maximum efficiency.

2. An anticreeping device for railway-rails comprising a shoe arranged to fit over the rail-base, a wedge adapted for insertion between said shoe and said rail-base and a coöperating recess and projection curved in a direction transverse to the rail to fit one within the other and located respectively on said wedge and said shoe for permitting said wedge to rock transversely relatively to said shoe and adjust itself to a position of maximum efficiency.

3. An anticreeping device for railway-

rails comprising a shoe arranged to fit over the rail-base and provided with a concave recess, a wedge adapted for insertion between said shoe and said rail-base and a convex projection extending lengthwise of said wedge and adapted to enter said recess and to form therewith a bearing on which said wedge may rock transversely to adjust itself to a position of maximum efficiency.

4. An anticreeping device for railway-rails comprising a shoe arranged to fit over the rail-base, and a wedge adapted for insertion between said shoe and said rail base and arranged to engage the rail-base at points spaced from each other transversely of the rail.

5. An anticreeping device for railway-rails comprising a shoe arranged to fit over the rail-base and provided with a concave recess, a wedge arranged for insertion between said shoe and said rail-base and provided with a longitudinally extending recess adjacent to said rail-base and a convex projection extending lengthwise of said wedge and adapted to enter the recess of the shoe.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

AUGUST J. DINKLAGE.

Witnesses:
JOHN A. KEHLENBECK,
FRITZ ZIEGLER, Jr.