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ANTICREEPER FOR RAILS.

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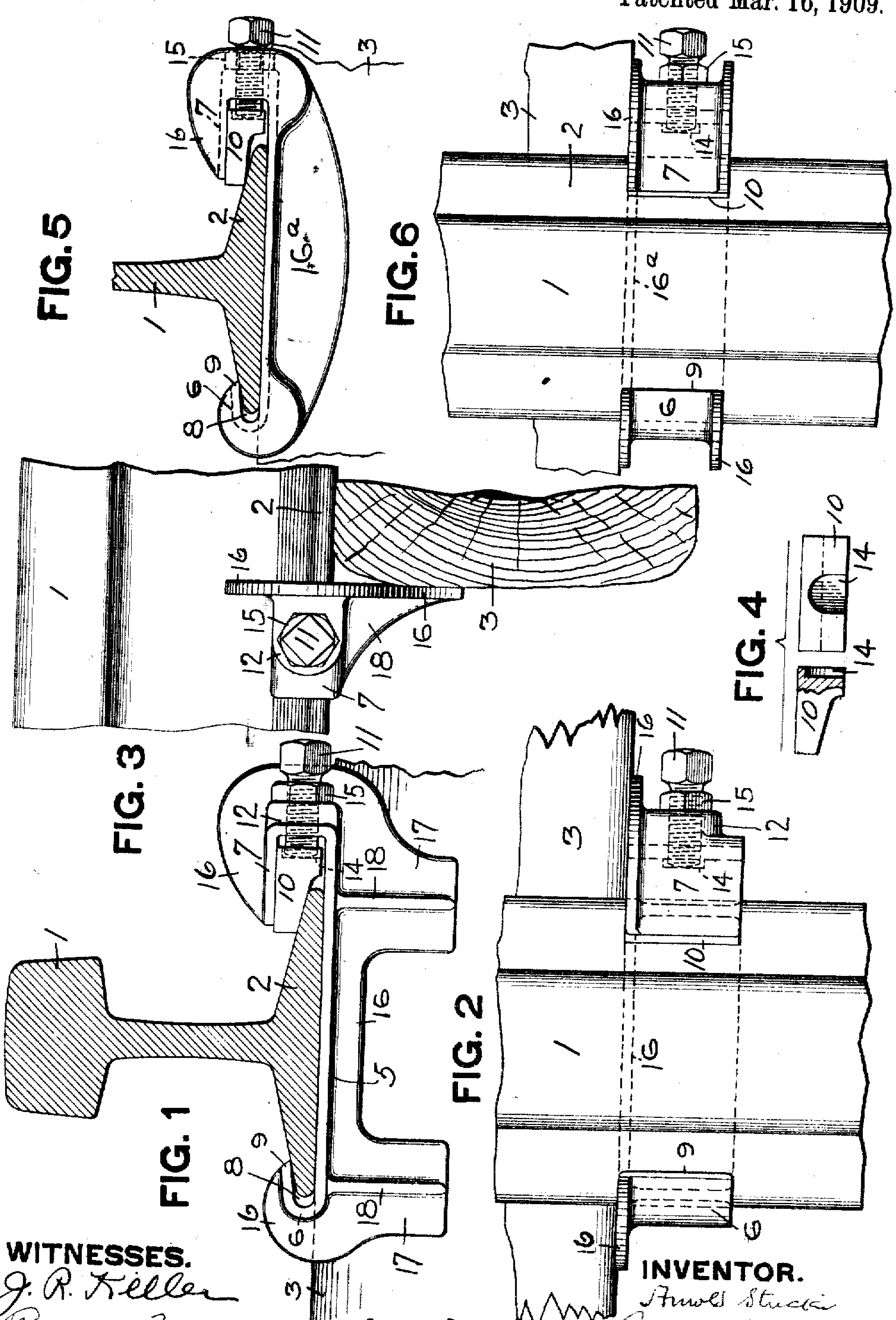

WITNESSES.

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ANTICREEPER FOR RAILS.

No. 915,634. Specification of Letters Patent. Patented March 16, 1909.

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To all whom it may concern:

Be it known that I, ARNOLD STUCKI, a resident of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Anticreepers for Rails; and I do hereby declare the following to be a full, clear, and exact description thereof.

This invention relates to anti-creeping devices for railway rails and its object is to provide a device of this character which is cheap to manufacture, is durable and needs no repairs, which can be easily applied to a rail in any position, and especially one which is constructed to very firmly grip the rail base.

Heretofore numerous devices have been designed for application to the bases of railroad rails and arranged to abut against the cross ties so as to prevent longitudinal creeping of the rails. My device is adapted for this purpose and is an improvement upon prior devices of this character in order to facilitate and cheapen the manufacture, give a simple and durable device, and one easily applied and effective to carry out its intended function.

The invention comprises the construction and arrangement hereinafter described and claimed.

In the accompanying drawing Figure 1 is a transverse section through a railroad rail showing my device applied thereto; Fig. 2 is a plan view of the same; Fig. 3 is an end view of the device showing a portion of the rail in side elevation; Fig. 4 is a detail of the wedge block employed; Fig. 5 is a view similar to Fig. 1 showing a modification; and Fig. 6 is a plan view of a modification.

In the drawings the railroad rail is shown at 1, this being of the usual standard type having the tapering base flanges 2.

3 indicates a cross tie which is shown as formed of wood but which may be metal.

The anti-creeping device comprises a suitable clamping member 5 arranged to extend underneath the rail base and provided at its ends with jaws 6 and 7. The jaw 6 has the mouth or opening 8 of about the same depth as the edge of the rail base and is formed on a taper slightly less than the taper of the rail base, or, in other words, the upper face of the jaw is on an angle from the horizontal somewhat less than the angle of the top face of the rail base. The consequence is that only the end 9 of the jaw contacts with the rail base but engages with it on a very sharp angle so that a slight force acting to move the jaw toward the axis of the rail secures a very great biting effect of the jaw into the rail, due to the small difference of angle between the rail base and the jaw.

The horizontal movement of the clamping member in order to secure the biting effect above described is obtained by means comprising a suitable wedge block 10 fitting in the jaw 7 and bearing against the rail base, together with suitable means for forcing the wedge block 10 against said base to thereby draw the clamping member horizontally. As shown, this means comprises a set screw 11 passing through a threaded hole in the thickened portion 12 of the jaw and having its end fitting into a recess 14 in the outer end of the wedge block, said recess being provided in order to prevent accidental displacement of the wedge block. By merely forcing the set screw inwardly and forcing the wedge block against the rail base, the clamping member is of course drawn horizontally, thereby forcing the jaw 6 against the rail base to bite into the latter. The wedge block 10 may have the same taper as the flange of the rail base, as shown in Fig. 1, or it may be of less taper than said flange, as shown in Fig. 5. If desired, one or both the jaw 6 and wedge block 10 may be provided with corrugations or the like to increase the biting effect. A locking nut, 15 may and preferably is provided on the set screw to hold it against accidental loosening.

The throat or opening in the jaw 7 is sufficiently deep and long to permit the application of the clamping member to a rail in place, this being effected before the wedge block 10 is inserted. Consequently the device can be applied to rails while in place and does not necessitate the removal of the rail. If desired both jaws may be like the jaw 7 and a wedge block used on each side.

The clamping member is so constructed as to abut against the cross tie, being provided with a vertical web 16 and with one or more lugs 17 projecting down below the web. Fig. 1 shows two such lugs, one on either end, both braced or strengthened by ribs 18 but if desired only one thereof may be used. Fig. 5 shows a modification in which the lugs are dispensed with but the web 16^a is made somewhat deeper than shown in Fig. 1. The latter construction is especially adapted for metallic ties in which case the abutting member does not need to project down as far as

with wooden ties, which usually are rounded. Also, if desired, the clamping member may have a web 16 on both edges instead of only on one edge, this modification being shown in Fig. 6. Various other modifications in the device may be made.

The device described is simple and cheap to manufacture, since all the parts can be formed by casting and require practically no machine work. There are only a few pieces, which are not liable to breakage nor can they wear out so that repairs are reduced to a minimum. The device can be easily applied and to a rail in any position. It is so constructed that it grips the rail base very firmly, giving it maximum holding power.

Various modifications may be made in the device, such as using in lieu of the block 10 and screw 11 a tapering wedge driven in from the side between the jaw and the rail base, or making the clamping member in two pieces constructed and arranged to be drawn by a wedge or the like toward the axis of the rail, in both cases causing the jaws to be closed horizontally. Other modifications will also suggest themselves to those skilled in the art.

What I claim is:

1. An anti-creeping device for rails, comprising a clamping member constructed to extend underneath the rail and provided with jaws fitting over the edges of the rail base, one of said jaws having a sharpened or biting edge and constructed to contact with the top tapering surface of the rail base at a constant angle from the horizontal less than the angle of said base and bite into the same, and means for causing said jaws to grip the rail base.

2. An anti-creeping device for rails, comprising a clamping member constructed to engage underneath the rail and provided with jaws fitting over the edges of the rail base, one of said jaws being constructed to contact with the tapered top surface thereof at an angle from the horizontal less than the angle of said base, and one of said jaws being formed of a laterally moving wedge, whereby on the movement thereof the jaws grip the rail base.

3. An anti-creeping device for rails, comprising a clamping member constructed to extend underneath the rail provided at its ends with jaws fitting over the edges of the rail base, one jaw having a less taper than the taper of the rail base, and one jaw being formed of a wedge block fitting in a guideway and engaging the rail base and by its wedging action clamping the jaws upon the rail base.

4. An anti-creeping device for rails, comprising a clamping member constructed to extend underneath the rail provided at its ends with jaws fitting over the edges of the rail base, one jaw having a less taper than the taper of the rail base, and one jaw being formed of a wedge block fitting in a guideway and engaging the rail base, and means for forcing said wedge block against the rail base and thereby causing the jaws to grip the same.

5. An anti-creeping device for rails, comprising a clamping member constructed to extend underneath the rail provided at its ends with jaws fitting over the edges of the rail base, one jaw having a less taper than the taper of the rail base, and one jaw being formed of a wedge block fitting in a guideway and engaging the rail base, and a horizontally arranged screw operating on said wedge block, thereby acting to cause the jaws to grip the rail base.

In testimony whereof, I the said ARNOLD STUCKI have hereunto set my hand.

ARNOLD STUCKI.

Witnesses:

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