

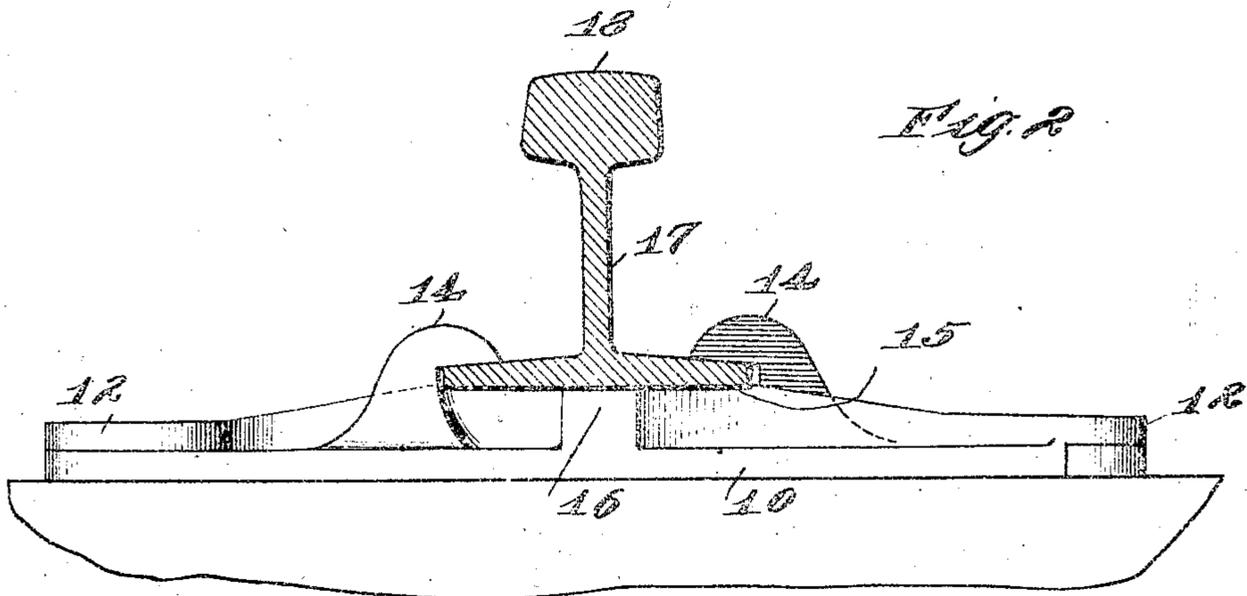
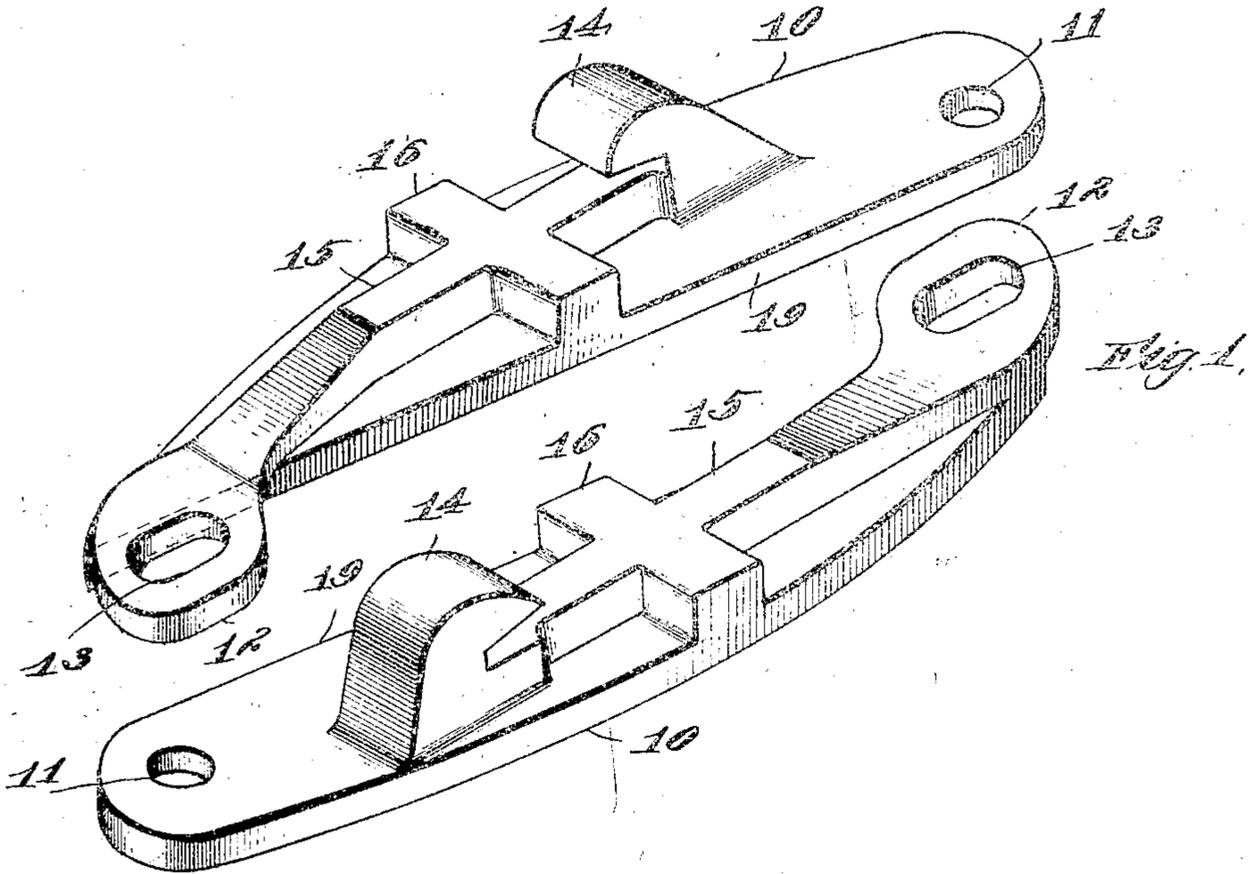
G. G. FLOYD.
RAIL CLAMP.

APPLICATION FILED OCT. 20, 1908.

Patented Aug. 3, 1909.

2 SHEETS—SHEET 1.

929,930.



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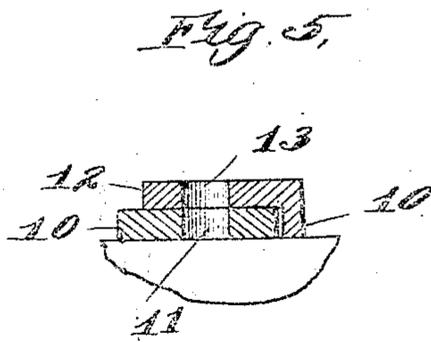
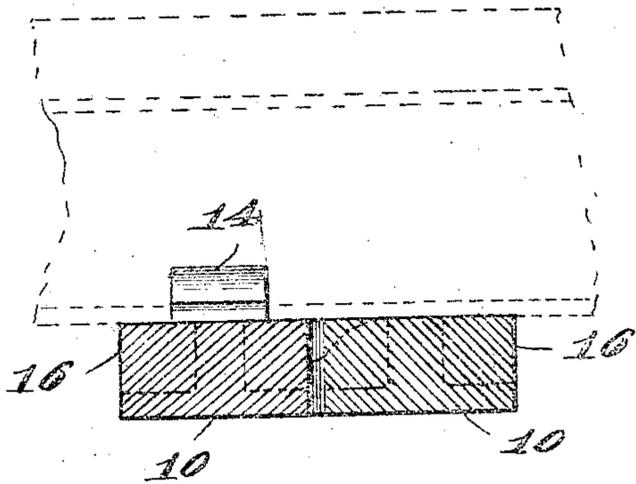
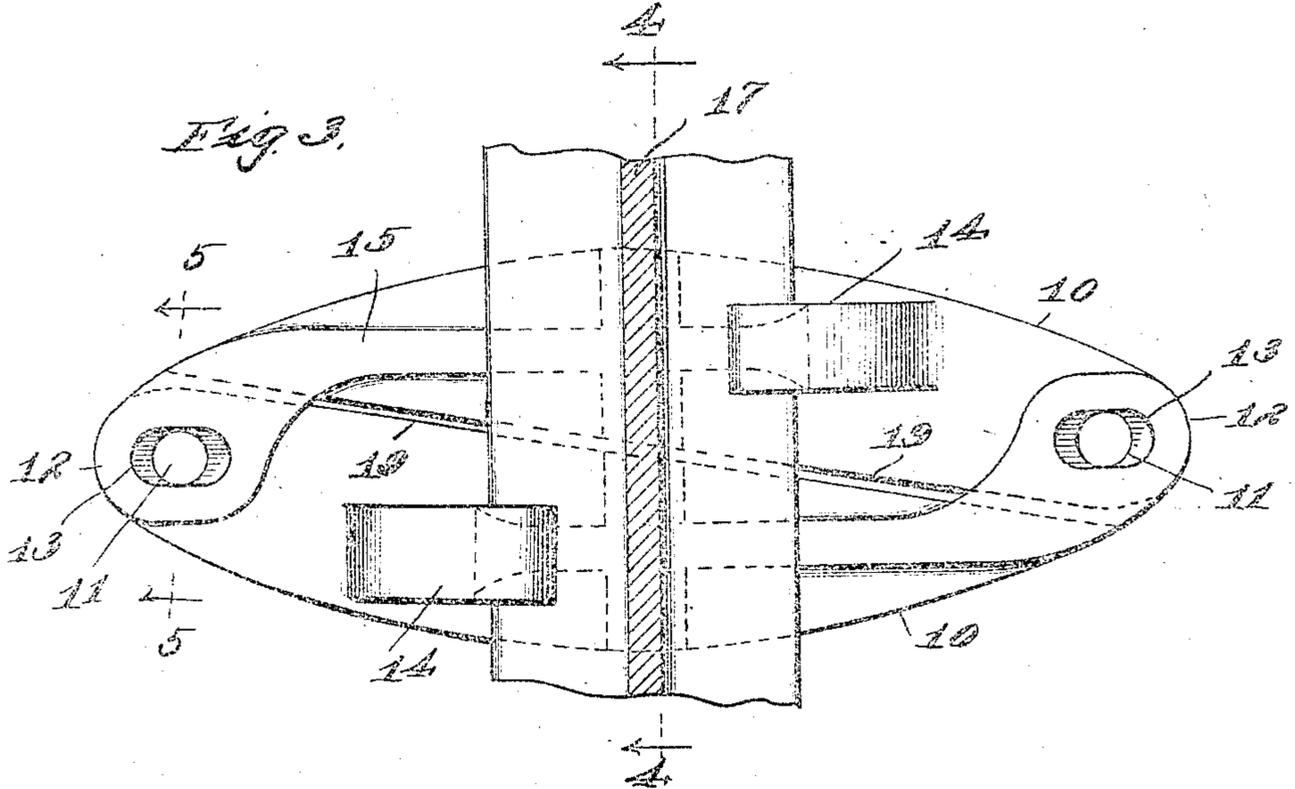
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UNITED STATES PATENT OFFICE.

GEORGE G. FLOYD, OF GRANITE, ILLINOIS, ASSIGNOR TO AMERICAN STEEL FOUNDRIES,
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RAIL-CLAMP.

No. 929,930.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed October 20, 1908. Serial No. 458,639.

To all whom it may concern:

Be it known that I, GEORGE G. FLOYD, a citizen of the United States, residing at Granite, in the county of Madison and State of Illinois, have invented certain new and useful Improvements in Rail-Clamps, of which the following is a specification.

My invention relates to railroad rail clamps in general, and more particularly to devices of this character composed of a pair of parts or sections adapted to grip or clamp opposite edges of the rail base or flange.

In the preferred embodiment of this invention each part or section of the clamp is equipped with a gripping portion or hook, and has an ear or lateral extension overlapping a portion of the companion part or section, the sections of the clamp being held in rail-gripping or operative position by means of spikes or equivalent devices driven through registering apertures or holes in the overlapped parts into the cross-tie or sleeper. By making one of the apertures in each part elongated, the clamp may be used on rails varying in width without destroying or diminishing the effectiveness or efficiency of the grip secured on the rail base.

Other features of novelty and improvement will become apparent from a consideration of the following detailed description of a desirable embodiment of the invention, which should be read in connection with the accompanying drawing, forming a part of this specification and wherein like reference characters refer to the same parts throughout the various views.

On the drawings,—Figure 1 is a perspective view of the pair of parts or sections of a rail-clamp forming a preferred embodiment of this invention; Fig. 2 is an edge view of the assembled sections showing the same in rail-gripping position, the rail itself being illustrated in section and a part of the sleeper or cross-tie being shown; Fig. 3 is a plan view of the construction shown in Fig. 2, the rail being longitudinally sectioned along its web and the cross-tie being omitted; Fig. 4 is a section on line 4—4 of Fig. 3, the portion of the rail being indicated in dotted lines; and Fig. 5 is a section on line 5—5 of Fig. 3, a fragment of the cross-tie or sleeper being indicated.

Since the two parts of the rail-clamp are duplicates, a detailed description of one will of course be sufficient for a full understand-

ing of the constructions of both. Each section has an elongated flat base 10 supplied near one end with a round aperture or hole 11 extended therethrough, the opposite end of the piece being provided with a slightly elevated laterally-extended ear or lug 12 having an elongated aperture or slot 13 extended therethrough, the construction being such that the slotted ear of each section will neatly fit over the apertured portion of the companion section in the operative or rail-gripping position, as illustrated in Figs. 2 and 3, it being noted that each ear is elevated an amount approximately equal to the thickness of the base 10. Each piece is supplied with an upstanding hook or gripping member 14 adapted to engage the slightly inclined top surface of the rail base or flange, as illustrated in Fig. 2, this base resting on a rib 15 extended transversely thereto and rising some distance above the top face of the base 10. In addition, each section of the clamp is supplied with another rib 16 on its top face adapted in the operative position of the section to lie beneath and be disposed longitudinally of the web 17 of the rail 18, it being understood that the base of the rail rests directly on the top flat faces of the two ribs 15 and 16 of each clamp section. As is clearly illustrated, the longer rib 15 extends from beneath the hook or gripping portion 14 to the ear 12, being somewhat reduced in height as it approaches the latter part of the clamp section. As is apparent from the illustration on the drawings, the proximate edges 19 of the two clamp sections are disposed somewhat inclined to the ribs 15 and 16 so that the clamp, when the two sections are assembled as shown in Fig. 3, is divided diagonally, a slight space or clearance between the two edges 19 being usually present and permitting the clamp to be applied to and effectively grip the bases of rails of different widths or thickness.

The divided clamp is applied to the rail in substantially the following manner: The rail having been placed in position upon the cross-tie or sleeper, the two halves or sections of the clamp shown in the drawing and described above are slipped under the flange or base of the rail from opposite directions so that their respective hooks engage portions of the rail base on opposite sides of its web. The halves are then ad-

justed so that the slot or elongated aperture 13 in each lateral ear is above and registers or matches with the smaller hole 11 in the half or section below, this arrangement of the parts being clearly shown in Fig. 3. The hooks 14 are then struck horizontally with a sledge hammer so as to swage them upon the rail base and cause them to grip the same securely and firmly. A spike is then inserted in the matching hole and slot at one end of the clamp and driven into the cross-tie or sleeper until its head nearly reaches the upper surface of the clamp but does not bind the upper section of the clamp from moving, although it does effectively prevent longitudinal movement of the under section and backing off or loosening of the gripping hook. This spike is desirably driven at an inclination to the vertical and braces the adjacent hook in its gripping position. The other spike is then inserted in the registering hole and slot at the other end of the clamp after the opposite hook 14 is again sledged to make sure that there has been no loosening of the same from the rail base, the spike being then driven home, after which the first inserted spike is also driven fully into place.

As is apparent, the slots in the superposed portions or lateral ears of the sections of the clamp allow an adjustment of the hooks transversely to the rail to accommodate rail bases of different thicknesses and widths without destroying the matching or registering positions of the slots with the smaller holes in the lower portions of the clamp. It may be noted that the space between the two edges 19 of the clamp sections will depend upon the dimensions of the particular rail base with which the divided clamp is cooperating. The top surfaces of the ribs 15 disposed transversely to the rail act as effective supports for the latter, being assisted by the ribs 16 which when in position are directly beneath the web 17 of the rail, thereby securing a strong support for the rail with a minimum amount of metal in and weight of the parts of the clamp.

Whereas in this specification a full and complete description has been given of the minor features of construction of this improved clamp, it is not to be understood that the invention is limited strictly to the form of clamp shown, because its structural features may be changed within wide limits without departure from the heart and substance of the invention.

I claim:

1. A rail-clamp having a base adapted to rest on a cross-tie, a gripping portion to engage the rail-base, and a rib on the upper surface of said base intended to be disposed longitudinally of and beneath the web of the rail, the base of the rail being intended to rest on said rib, substantially as described.

2. A rail-clamp having a base adapted to rest on a cross-tie, a gripping portion to engage the rail-base, a rib on the upper surface of said base adapted to be disposed transversely to said rail, and a second rib on the upper surface of said base intended to be disposed longitudinally of and beneath the web of the rail, the base of the rail being intended to rest on both of said ribs, substantially as described.

3. A rail-clamp consisting of a pair of sections adapted to rest on a cross-tie beneath the rail, each section having means to grip the rail and a hole therethrough at one end, each section also having an elongated aperture through an ear at its opposite end, the holes and apertures registering when the sections are properly positioned, whereby securing means may be driven therethrough into the cross-tie, substantially as described.

4. A rail-clamp consisting of a pair of sections adapted to rest on a cross-tie beneath the rail, each section having a hook to grip the rail-base and also having a hole therethrough at one end, each section having in addition a slotted lateral ear at its opposite end, said holes and slots registering when the sections are in operative position, whereby securing means may be driven therethrough into the cross-tie, substantially as described.

5. A rail-clamp consisting of a pair of sections adapted to rest on a cross-tie beneath the rail, each section having a hole therethrough at one end, means to grip the rail-base, and a slotted laterally-projecting ear at its opposite end, said holes and slots registering when the sections are in operative position, whereby securing means may be driven therethrough into the cross-tie each section also having a rib on its top face positioned so as to lie beneath and longitudinally of the web of the rail when the sections are in rail-gripping position, substantially as described.

6. A rail-clamp consisting of a pair of sections adapted to rest on a cross-tie beneath the rail, each section having a hole therethrough at one end, means to grip the rail-base, and a slotted laterally-projecting ear at its opposite end, said holes and slots registering when the sections are in operative position, whereby securing means may be driven therethrough into the cross-tie, each section also having on its top face a pair of ribs one of which is disposed transversely to and the other disposed longitudinally of and beneath the web of the rail when the sections are in rail-gripping position, substantially as described.

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