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J. J. O. FISCHER.
ANTICREEPING DEVICE FOR RAILS.

APPLICATION FILED JUNE 24, 1905.

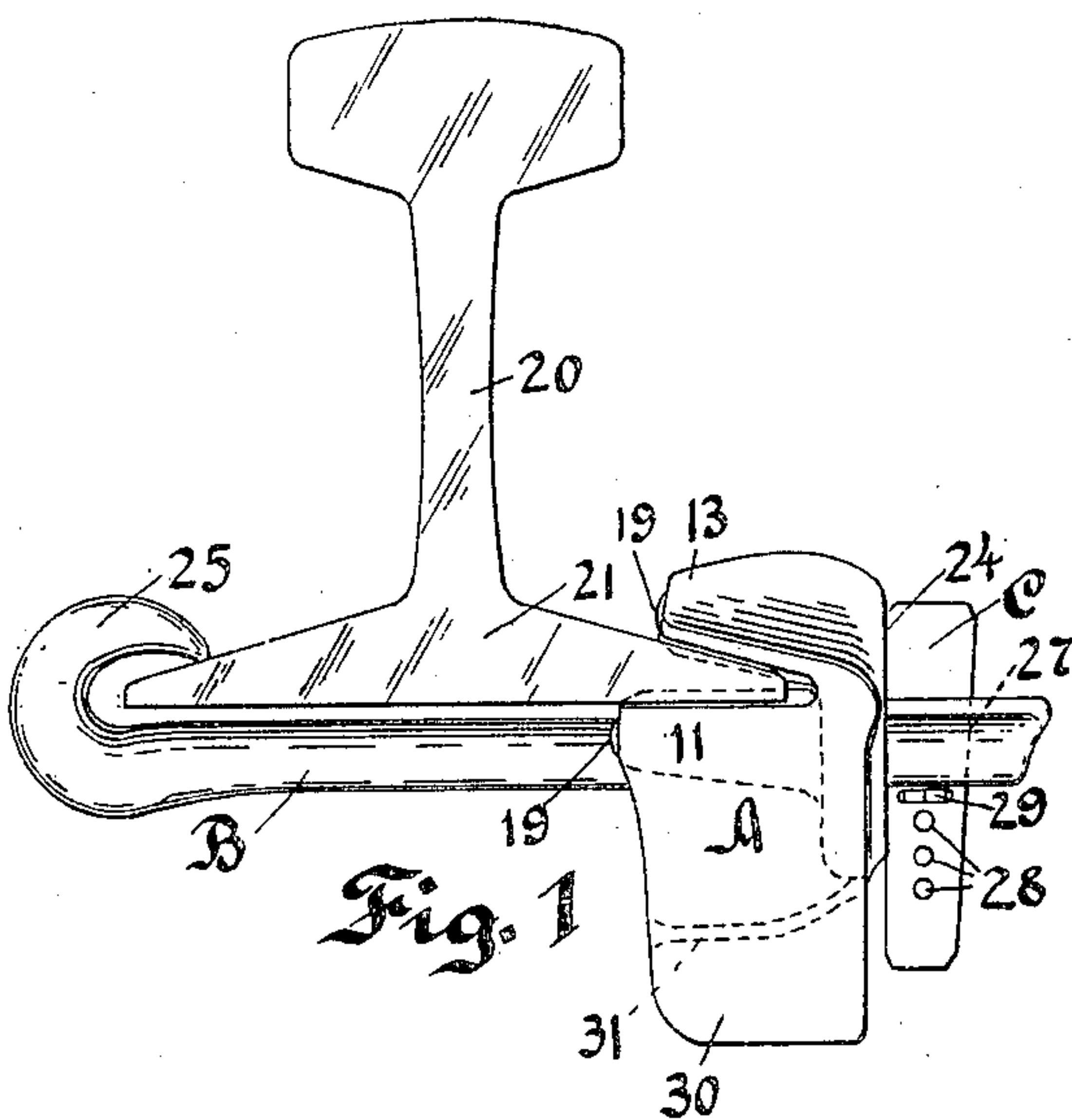


Fig. 1

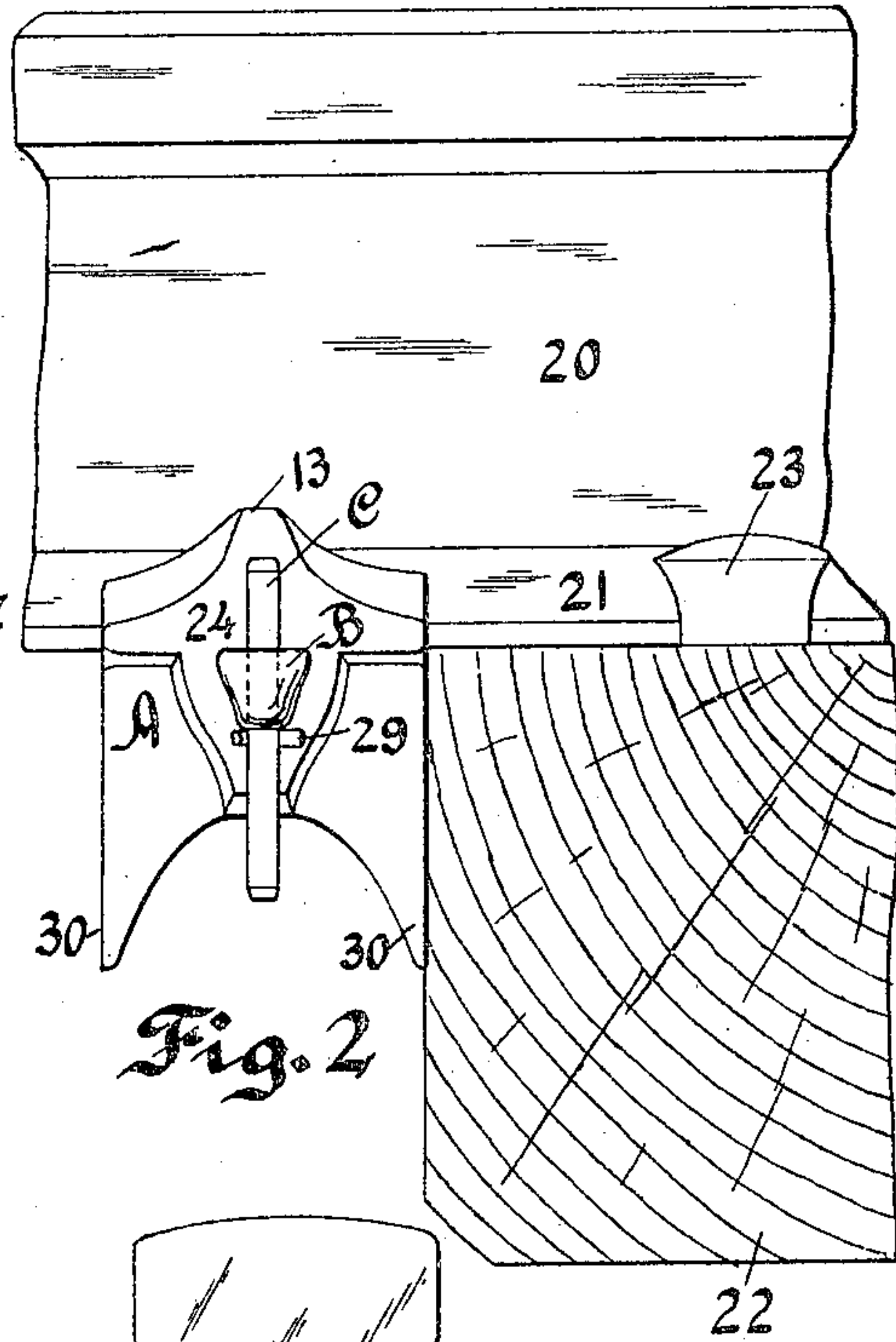


Fig. 2

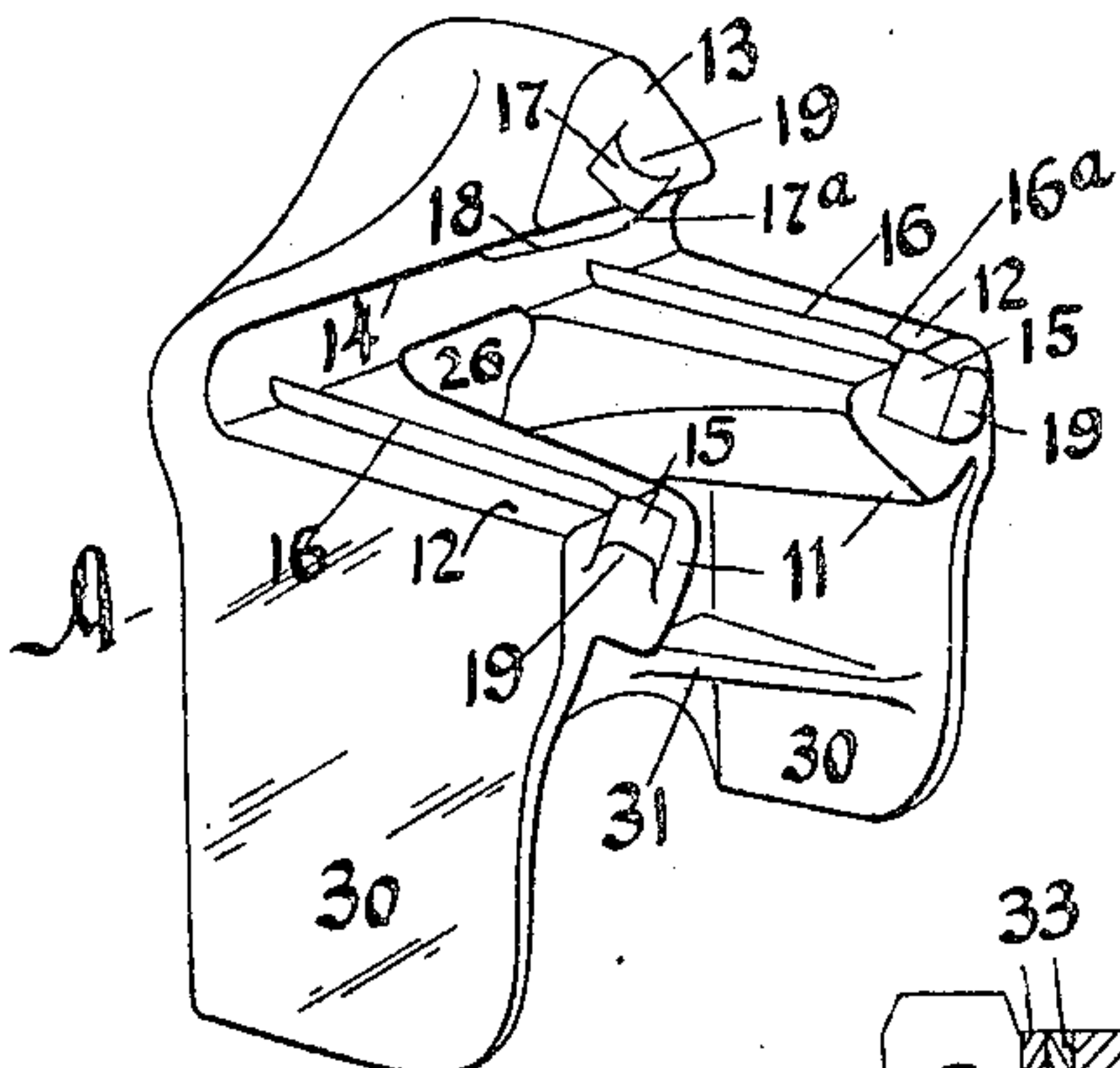


Fig. 3

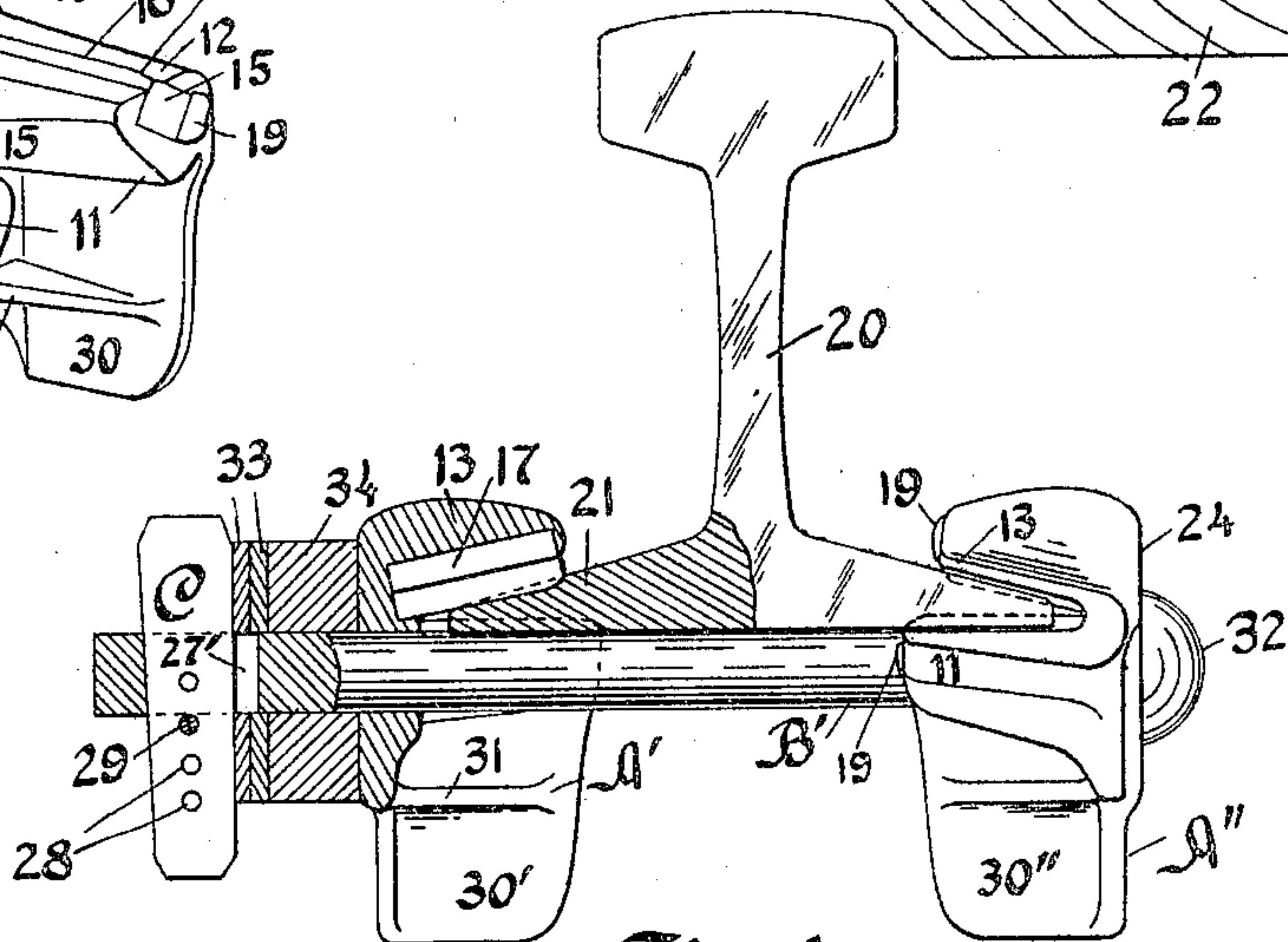


Fig. 4

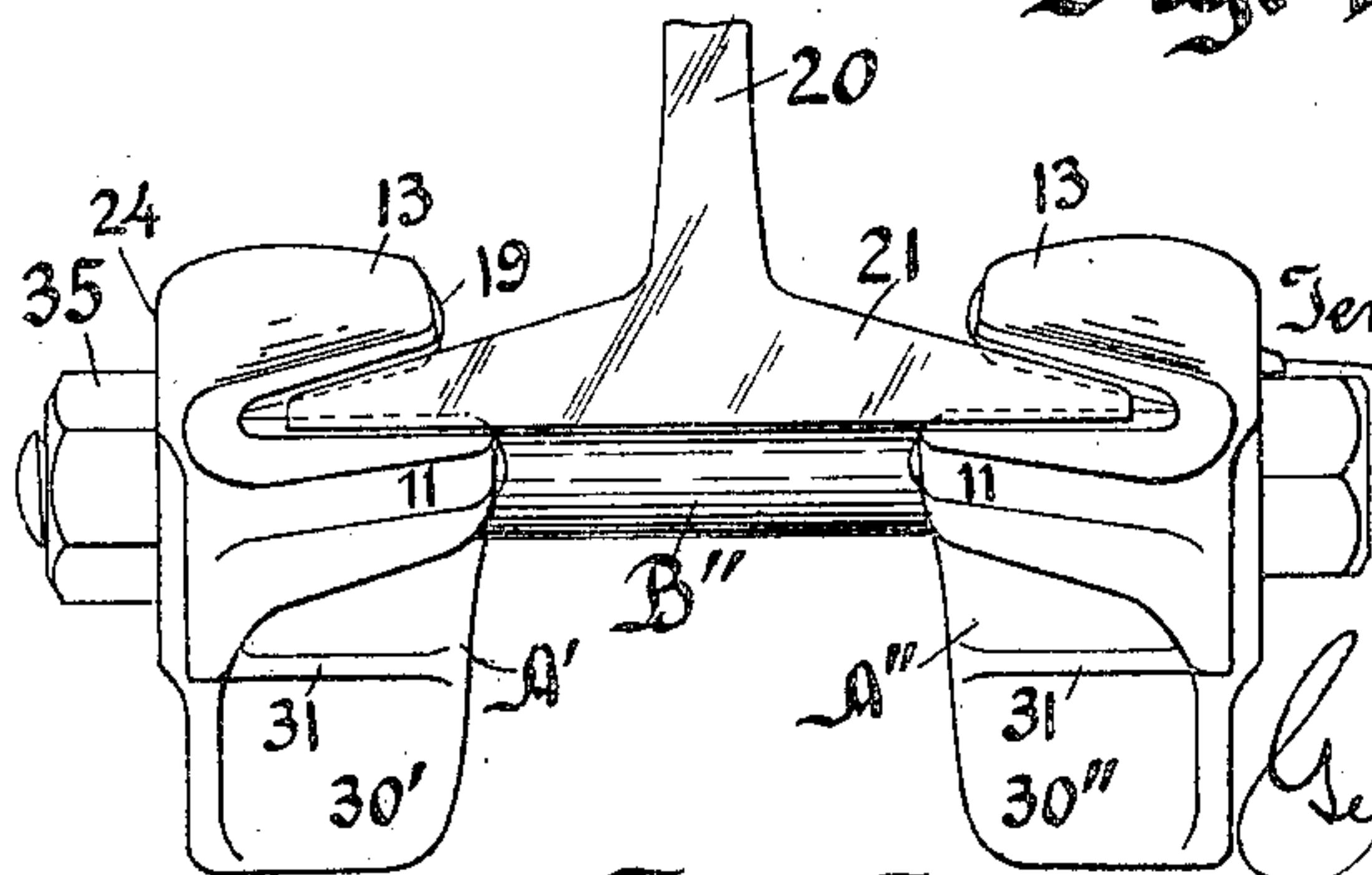


Fig. 5

Witnesses
Sam'l Reiss

Gertrude H. Bomb

Jens Jorgensen Ove Fischer,
Inventor,

By

George S. Moore
Attorney

UNITED STATES PATENT OFFICE.

JENS JORGENSEN OVE FISCHER, OF RACINE, WISCONSIN, ASSIGNOR TO
HIMSELF AND MARTIN J. GOEPFERT, OF RACINE, WISCONSIN.

ANTICREEPING DEVICE FOR RAILS.

No. 808,648.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Application filed June 24, 1905. Serial No. 266,717.

To all whom it may concern:

Be it known that I, JENS JORGENSEN OVE FISCHER, of Racine, Wisconsin, have invented an Anticreeping Device for Rails, of which the following is a specification.

This invention relates to devices for gripping the rails of a railway-track to hold them against the longitudinal movement known as "creeping," which, as is well known, is caused by heavy travel over the track and is of general occurrence where some means is not taken to prevent it.

The object of my invention is to provide a device for gripping the rail and holding there-to with sufficient force to prevent any longitudinal movement and a device superior in cheapness and efficiency to devices which have been heretofore invented and one which can be applied at any point of the rail and does not require any notches, holes, or other means of attachment requiring special shaping of the rail.

My device consists, briefly, of a jaw or pair of jaws adapted to fit over the flange of the rail and provided with knife-edges which bite into the metal of the rail when the device is driven into position and means for holding said jaw or pair of jaws in place on the flange, said jaw or jaws being also provided with an abutment-face which is adapted to rest against a tie and transmit the endwise pressure upon the rail thereto.

A special and important feature of my invention consists in the means whereby I am enabled to dispense with all bolts, which offer serious objections to the use of such devices by reason of the amount of attention required to keep the nuts thereof screwed up tight, as is well known to railway-men.

My invention will best be understood from the following description, reference being had to the accompanying drawings, wherein—

Figure 1 is an end view of a rail, showing an anticreeping device according to my invention secured thereto. Fig. 2 is a side view of the same. Fig. 3 is a perspective view of the clamping-jaw. Fig. 4 is an end view of a rail having a pair of jaws secured thereon; and Fig. 5 is a similar view, partly in longitudinal section, of a modified construction whereby a bolt is used in connection with my improved jaws in place of the improved key-fastening shown in the other figures of the drawings.

The principal element of my invention consists of the clamping-jaw, (designated A in the drawings,) said jaw consisting of two lower members 11, having upper faces 12, parallel to the bottom of the rail-flange, and an upper projecting member 13, having a lower face 14 parallel to the upper face of the rail-flange. In each of the lower members 11 is set a knife of chilled iron or hardened steel 15, which has an edge 16 projecting slightly above the face 12 of the member 11, and in like manner there is set in the upper member 13 a knife 17, which has an edge 18 projecting from the lower face 14 thereof. The member A is preferably a casting of malleable metal having recesses cast therein to admit the knives 15 and 17, which are of angular (herein shown as square) section to prevent them from rotating in their sockets. A tab 19 is left at the edge of the recess forming the socket of each of the knives 15 17, said tab being cast in erect position, as shown at the right of Fig. 3, and subsequently hammered down over the ends of the knives 15 17, as shown at the left and top of Fig. 3, to prevent said knives from falling out of their sockets.

In Figs. 1 and 2 is shown a rail 20, having a flange 21 and seated on a tie 22, and spiked thereto by means of a rail-spike or other fastening 23. The member A is driven over the edge of the flange 21 by a sledge-hammer applied to its rear face 24, causing the knife-edges 16 18 to bite into the metal of the rail. In connection with the member A is used a member B, which consists of a bar having a hook 25 at one end, which engages the opposite edge of the rail-flange 21, as shown, and the other end of the bar B is passed through a hole 26 in the center of the member A and is provided with a slot 27, through which is inserted a tapered cotter C, which, being driven down, causes the hook 25 and member A to be drawn up firmly and the knife-edges to bite more deeply into the rail-flange. In the member C is bored a row of holes 28 and when the member is driven down as far as possible a split pin 29 is inserted in the uppermost hole, which projects below the slot 27 and the ends thereof expanded, as shown, to prevent the member C from coming loose. The member A is provided on each side with an abutment-face 30, which may be braced on the interior by a bracket-rib 31, one of the

faces 30 being set to abut against the side of the tie 22. (See Fig. 2.) Also to enable the knives to cut more readily into the metal of the rail-flange the outer ends of the edges 16 18 may be slightly beveled, as shown at 16^a and 17^a.

In Fig. 4 is shown a somewhat different arrangement, two of the clamping-jaws A' A'' being employed and being joined together 10 by a round bar B', having a head 32 on one end and a slot 27' in the other, through which is passed the cotter C and secured therein by the split pin 29, as before. The jaws A' A'' are similar to the jaw A, except that each 15 is provided with but one abutment-flange 30' 30''. Whether one or two abutment-flanges are used will of course be a matter of convenience, it being understood that when one face only is used the double arrangement 20 of Fig. 4 requires two separate patterns for the jaws, having the flange on their right and left sides, respectively. Fig. 4 also shows how this arrangement may be made effective for different-sized rails without changing the 25 length of the connection B', the latter being made sufficiently long for the largest-sized rail, and one or more washers 33 or blocks 34 being inserted between the member A' and cotter C, according to the width of the flange 30 21, and the same device is also applicable in case the cotter C gets driven too far down in the slot or in case the bolt B' becomes elongated by use.

In Fig. 5 is shown how my improved clamping-jaw may be used with an ordinary bolt B'', having a nut 35, instead of my improved key-fastening B or B'. While I consider the key-fastening preferable, my invention is not limited to it, and it will be readily understood that other means for causing the clamping-jaw to grip the rail-flange may be used or might be devised without altering the principle of said jaw. When a bolt is used, as in 40 Fig. 5, a snug 36 may be cast on the member A'', which prevents the head of the bolt from turning while the nut 35 is being tightened up.

Having described my invention, what I claim as new, and desire to secure by Letters 50 Patent, is—

1. In an anticreeping device for rails, the combination of a jaw having upper and lower members adapted to grip over the edge of a rail-flange, a piece set in said jaw transversely 55 to said flange adapted to bite thereinto, and means for holding said jaw against longitudinal motion.

2. An anticreeping device for railway-rails comprising a jaw having upper and lower 60 members adapted to grip over the edge of a rail-flange, one or more separate pieces having sharpened, hardened edges set in one or both of said members in such manner that said edges project from the inner face or faces 65 thereof transversely to the rail, and means

for drawing said jaw transversely over the edge of the rail-flange whereby said edges are caused to bite thereinto.

3. An anticreeping device for rails comprising a hooked bar, a jaw sliding on said 70 bar and adapted to grip over the edge of a rail-flange, said bar having a slot therein, and a tapered cotter passing through said slot.

4. An anticreeping device for rails comprising a hooked bar, a jaw sliding on said 75 bar and adapted to grip over the edge of a rail-flange, said bar having a slot therein, a tapered cotter passing through said slot, and one or more adjustment-pieces 33, 34 inserted between said cotter and said jaw. 80

5. In an anticreeping device for rails, a jaw having upper and lower members adapted to grip over the edge of a rail-flange, hardened edges set transversely to the flange and adapted to bite thereinto, and means for 85 holding said jaw against longitudinal motion.

6. In an anticreeping device for rails, a jaw having upper and lower members adapted to grip over the edge of a rail-flange, a piece set in said jaw transversely to the flange and 90 having an edge adapted to bite thereinto, and an abutment-flange adapted to transfer the longitudinal thrust of the rail to the side of a tie.

7. In an anticreeping device for rails, a 95 clamping-jaw having upper and lower members adapted to grip over the edge of a rail-flange and having an abutment-face at the side thereof, and hardened knife-blocks set transversely in the faces of said jaw so that 100 their edges project therefrom and bite into the metal of the rail-flange.

8. An anticreeping device for rails comprising a clamping-jaw having upper and 105 lower members adapted to grip over the edge of a rail-flange and having an abutment-face at the side thereof, and hardened knife-blocks set transversely in the faces of said jaw so that their edges project therefrom and bite 110 into the metal of the rail-flange, in combination with a member passing under the rail and one end passing through a hole in said jaw, the other end being provided with means for gripping the opposite edge of the flange; and means for forcing said jaw along 115 the shank of said member.

9. An anticreeping device for rails comprising a clamping-jaw having upper and 120 lower members adapted to grip over the edge of a rail-flange and having an abutment-face at the side thereof, and hardened knife-blocks set transversely in the faces of said jaw so that their edges project therefrom and bite 125 into the metal of the rail-flange, in combination with a member passing under the rail and one end passing through a hole in said jaw, the other end being provided with means for gripping the opposite edge of the flange; a tapered cotter passing through a 130 slot in the first-named end of said member,

and means for preventing said cotter from being loosened in said slot when driven thereinto.

5 10. An anticreeping device for rails comprising a clamping-jaw having two members each provided with means for biting into one side of the rail-flange, a third member mid-
10 way between the other two and having means for biting into the other side of the rail-flange, and means for preventing a longitudinal motion of said clamping-jaw.

11. An anticreeping device for rails comprising a clamping-jaw having two project-
15 ing members abutting on the lower face of the rail and having means adapted to bite thereinto, a third member abutting on the upper face of the rail and midway between the other two, and means for preventing a longitudinal movement of said clamping-jaw.

20 12. An anticreeping device for rails comprising a clamping-jaw having a wedge-shaped recess adapted to receive the edge of the rail-flange, a pair of knife-edges set transversely in one face of said recess, and a third
25 knife-edge set transversely in the other face of said recess, said blades being adapted to bite into the opposite faces of the rail-flange

when said jaw is forced thereover; and means for holding said jaw in position on said flange. 30

13. In an anticreeping device for rails, a jaw having upper and lower members adapted to grip over the edge of a rail-flange, and one or more rectangular bars set in one of the jaws and having one edge projecting on the
35 inner face thereof and transversely to the rail whereby to bite into the rail-flange when the jaw is drawn thereover.

14. In an anticreeping device for rails, a gripping-jaw comprising upper and lower
40 members adapted to grip over the edge of a rail-flange, a pair of rectangular bars set in the lower jaw transversely to the rail, and a single rectangular bar similarly set in the upper jaw, said bars each having one edge pro-
45 jecting, and said single bar being midway between the other two.

In testimony whereof I have hereunto set my hand this 21st day of June, 1905.

JENS JORGENSEN OVE FISCHER.

In presence of—

AUG. SEHAEPF,
E. G. H. HENDT.