

D. E. SHEA.
 ANTICREEPER.
 APPLICATION FILED NOV. 16, 1908.

915,120.

Patented Mar. 16, 1909.

Fig. 1.

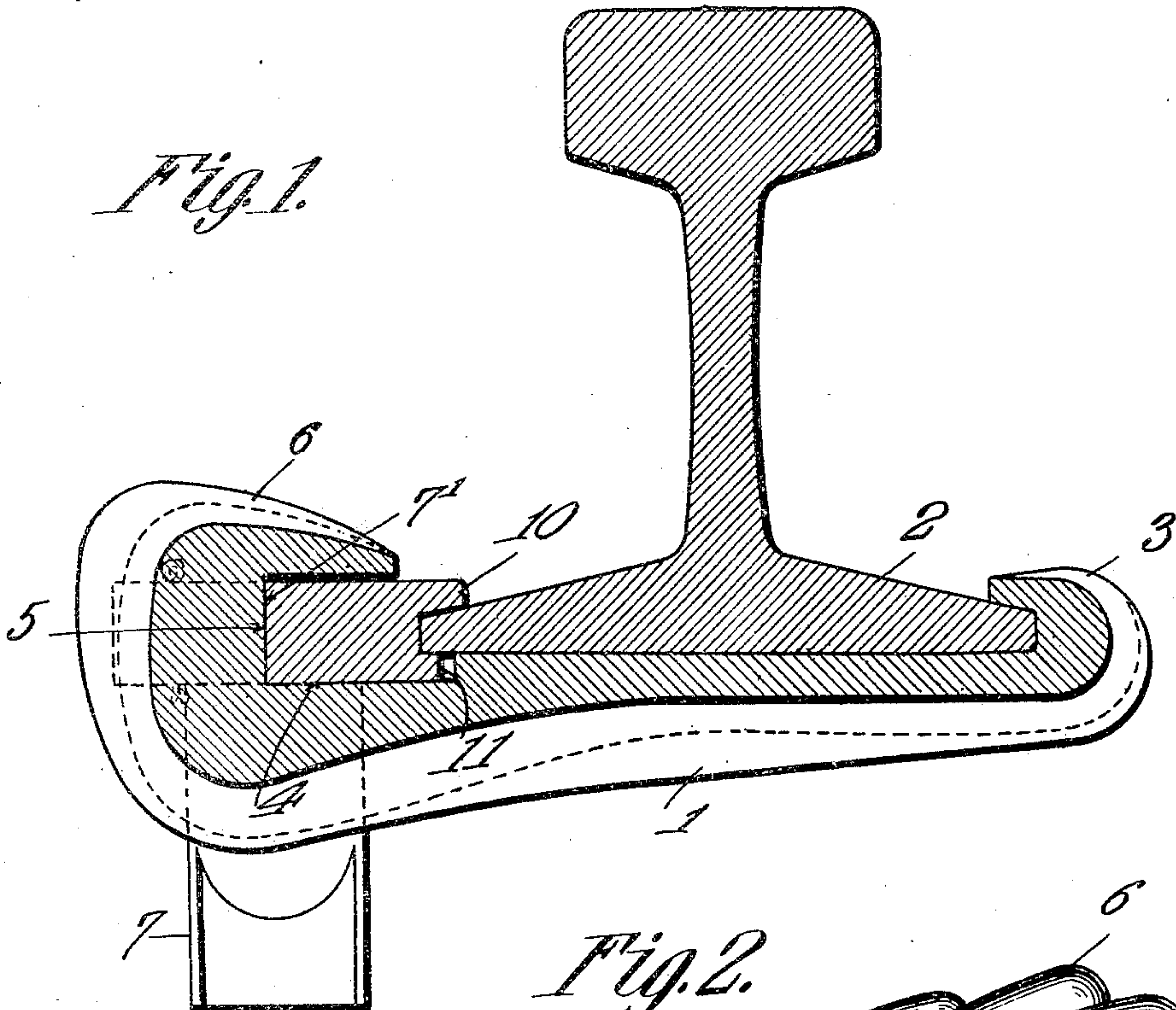


Fig. 2.

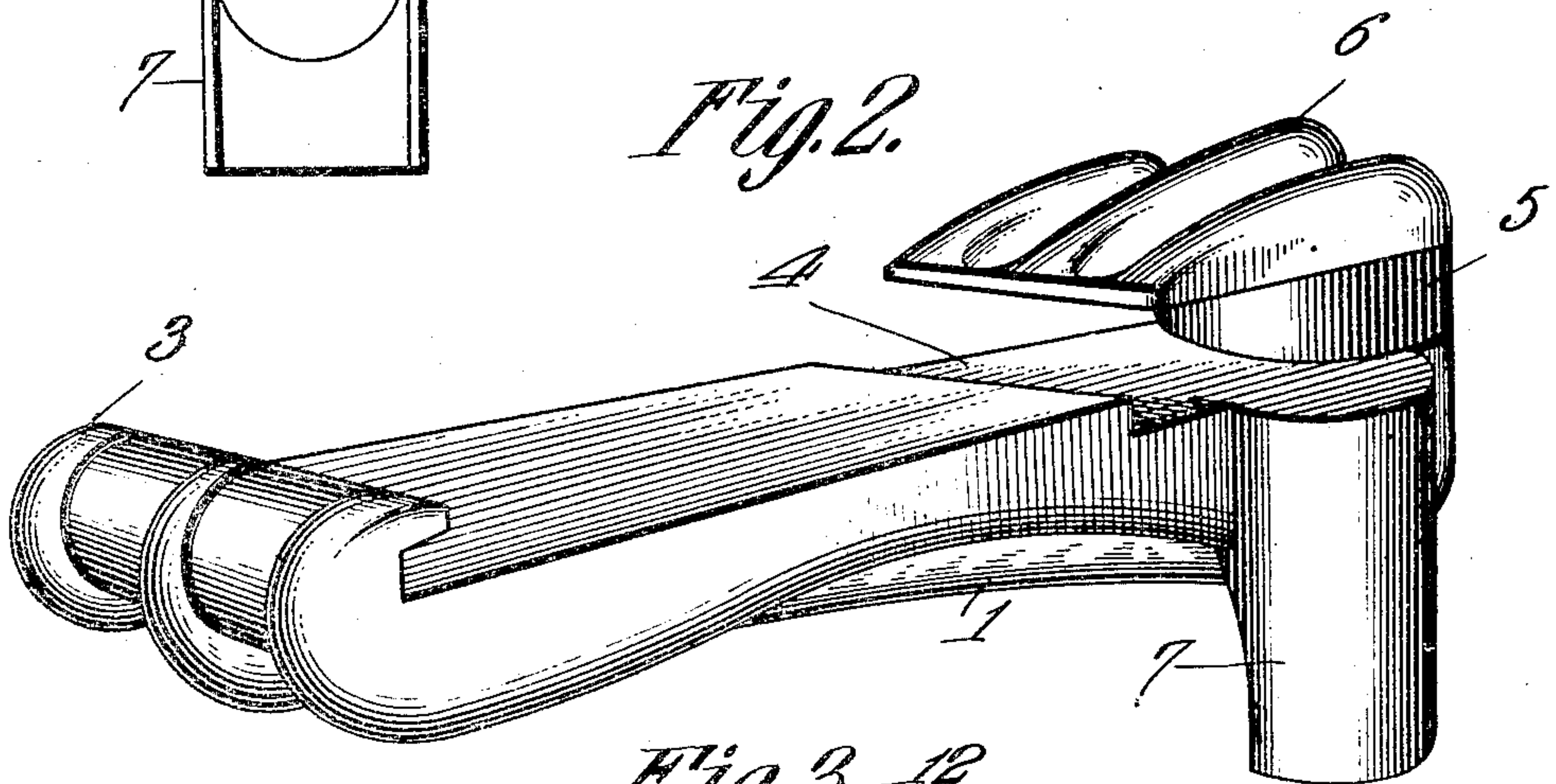


Fig. 3.

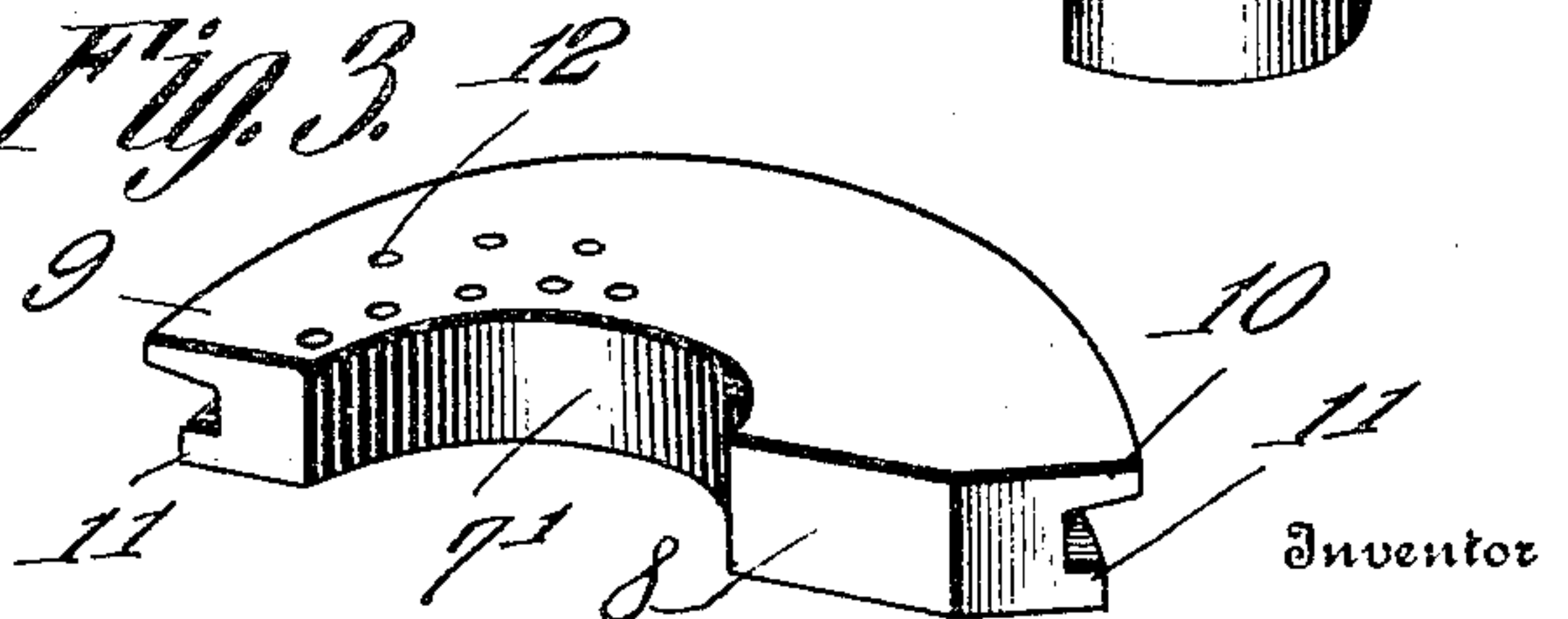
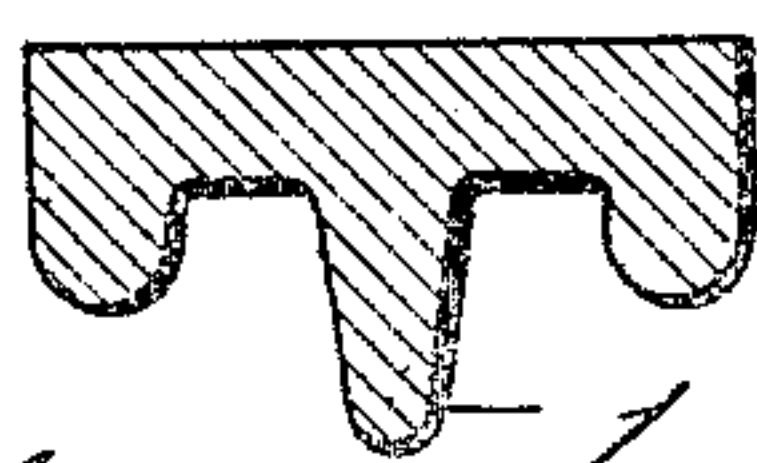


Fig. 4.



Witnesses

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ANTICREEPER.

No. 915,120.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DANIEL E. SHEA, a citizen of the United States, residing at Watertown, in the county of Jefferson and State of New York, have invented a new and useful Anticreeper, of which the following is a specification.

This invention relates to anti-creeper such as are used in connection with railway rails.

It has for one of its objects to provide a device of that kind which is designed to prevent what is known as creeping or longitudinal movement of the rail to which it is applied.

It is a well known fact that the tendency of railway rails to creep is particularly noticeable on double track lines where the trains all run in one direction and is especially troublesome on grades. The attempts usually made to overcome this movement consist chiefly in applying a clamp to the foot flange of the rail, the clamp being provided with a foot to abut against the adjacent tie, so that when the rail tends to creep, the tie receives the pressure through the foot. Various objections are made to this form of anti-creeper, chief among which is that the jaws of the clamp soon relax, thereby allowing the rail to creep as before.

The present invention aims to overcome this defect by providing a construction which will tend to become tighter through use.

With these and other objects in view, as will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claims, it being understood that various changes in the form, proportion, size and minor details of the device may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming a part of this specification:—Figure 1 is a horizontal section taken through a rail showing my device in longitudinal section and applied to the rail. Fig. 2 is a perspective view of the stay. Fig. 3 is a detailed perspective of the wedge. Fig. 4 is a horizontal section of the stay.

Similar numerals of reference are employed to designate corresponding parts throughout.

The stay comprises a body portion adapted to lie across the lower face of the foot flange of the rail, and provided at one end with an upturned hook to engage the edge thereof, and at its opposite end provided with an abutment and a seat in which is fitted a sliding gripping member or wedge to bite the opposite side of the foot flange when creeping occurs. The stay is preferably formed of a single piece of metal provided on one face with strengthening ribs 1. The length of the stay is considerably greater than the width of the ordinary foot flange 2 of the rail and terminates at one end in an upturned hook 3 which engages one edge of the foot flange 2. The upper face of the stay is flat and adjacent the end remote from the hook 3 is provided with a transverse seat or depression 4 and a vertical post 5, disposed at the end of the stay opposite to the hook 3. The inner face of the post 5 is provided with a convex surface, and on its upper end is secured a hook or overhang 6 similar to the hook 3, but of greater length than the latter, its inner edge lying substantially in a vertical plane with the inner edge of the seat 4. The distance between the lower face of the overhang 6 and the upper face of the floor 4 is considerably greater than the thickness at the outer edge of the foot flange of an ordinary rail, and the distance between the highest point in the convex surface of the post 5 and the engaging surface of the hook 3 is considerably greater than the width of the rail foot flange, so that when the device is applied and the hook 3 engages one side of the foot flange, as shown in Fig. 1, a socket will be formed by the opposite side of the foot flange and inner face of the post 5. The form of wedge employed to enter the socket consists of a single piece of metal substantially semicircular in shape and provided on its base with a concave recess 7 eccentrically disposed with respect to the short axis of the wedge, and of a size to straddle the convex surface of the post 5. Thus it can be seen that a wedge has been formed provided with comparatively wide and narrow ends 8 and 9. The upper and lower faces of the wedge are flat and coincident with the upper face is a projecting lip 10. The distance between the lower face of the wedge and lower face of the lip 10 is such that the said lower face of the lip, will, when the wedge has been inserted within the seat 4, bear on the upper face of the foot flange 2.

Coincident with the lower face of the wedge is a second lip 11, considerably less in width than the upper lip 10, and designed to bear on the lower face of the foot flange when the wedge has been inserted within the seat, as shown by Fig. 1. Thus it can be seen that a wedge has been provided, which owing to the eccentric recess 7' and the convex surface between the upper and lower lips, will tend to bite the edge of the foot flange when the latter tends to force it to move in one direction. Formed on the outer face of the stay and having its upper end coincident with the floor of the seat 4 is a depending foot 7 adapted to bear on the side of the cross tie to prevent the stay from creeping with the rail.

In the use of the device, the stay is applied to the lower face of the rail until the hook 3 engages one side of the foot flange thereof; into the socket now formed by the opposite side of the foot flange and convex surface of the post 5, the narrow end of the wedge is inserted until the convex surface between the upper and lower lips bears on the edge of the foot flange. This will leave the larger portion and widened end of the wedge projecting beyond the side of the stay. With a suitable tool the wedge may be given the initial tightening.

By referring now to Fig. 3, it will be seen that the wedge is provided with a series of vertical openings 12 adjacent its narrow end and when the operation just described has been completed, a suitable pin or the like may be inserted through one of these openings, so that its ends will bear on one side of the wedge and overhang 6 to prevent backward movement of the wedge. When the parts are in this position, the tendency of the rail to creep will force the widened portion of the wedge to enter the socket, thus forcing the convex side of the wedge to bite tighter and maintain the rail in proper position.

What is claimed is:—

1. An anti-creeper for rails comprising a body having at one end a hook to engage one side of the foot flange of a rail and a vertical post at its opposite end, a depending foot adjacent said post, and an arcuate wedge having one side adapted to bear on said ver-

tical post and its opposite side to engage the flange of the rail.

2. An anti-creeper for rails comprising a body having at one end a hook to engage one side of the base flange of a rail, and a vertical post having a convex surface at the opposite end of said body, a depending foot adjacent said post, and an arcuate wedge having a concave socket to engage the convex surface of said post, and further provided with a convex surface to engage the flange of the rail.

3. An anti-creeper for rails comprising a body having a rail engaging hook at one end thereof and provided at the other end with a seat, a vertical post provided with a convex surface disposed at the outer end of said seat, a depending foot on said body portion, and a wedge provided with an eccentric depression on one side to bear on the convex surface of said post, and further provided on its opposite side with a surface to bear on the foot flange of the rail.

4. An anti-creeper for rails comprising a body portion having a hook at one end to engage one side of the foot flange of a rail, and provided on its opposite end with a vertical post provided with a convex surface, a wedge adapted to be inserted between said convex surface and the opposite side of the foot flange of a rail, said wedge being provided on one side with a concave depression and provided on its opposite side with projecting lips, adapted to straddle and bear on the foot flange of the rail.

5. An anti creeper for rails comprising a body portion having a hook at one end to engage one side of the foot flange of a rail and provided on its opposite end with a vertical post provided with a convex surface, a wedge adapted to be inserted between said convex surface and the opposite side of the foot flange of a rail, said wedge being provided with a convex surface to bear on the adjacent side of the foot flange of the rail.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

DANIEL E. SHEA.

Witnesses:

C. F. PECK,
J. J. ALLEN.