

C. WENZELL.
 ANTICREEPER FOR RAILWAY RAILS.
 APPLICATION FILED MAY 8, 1908.

929,061.

Patented July 27, 1909.

2 SHEETS—SHEET 1.

FIG. 1.

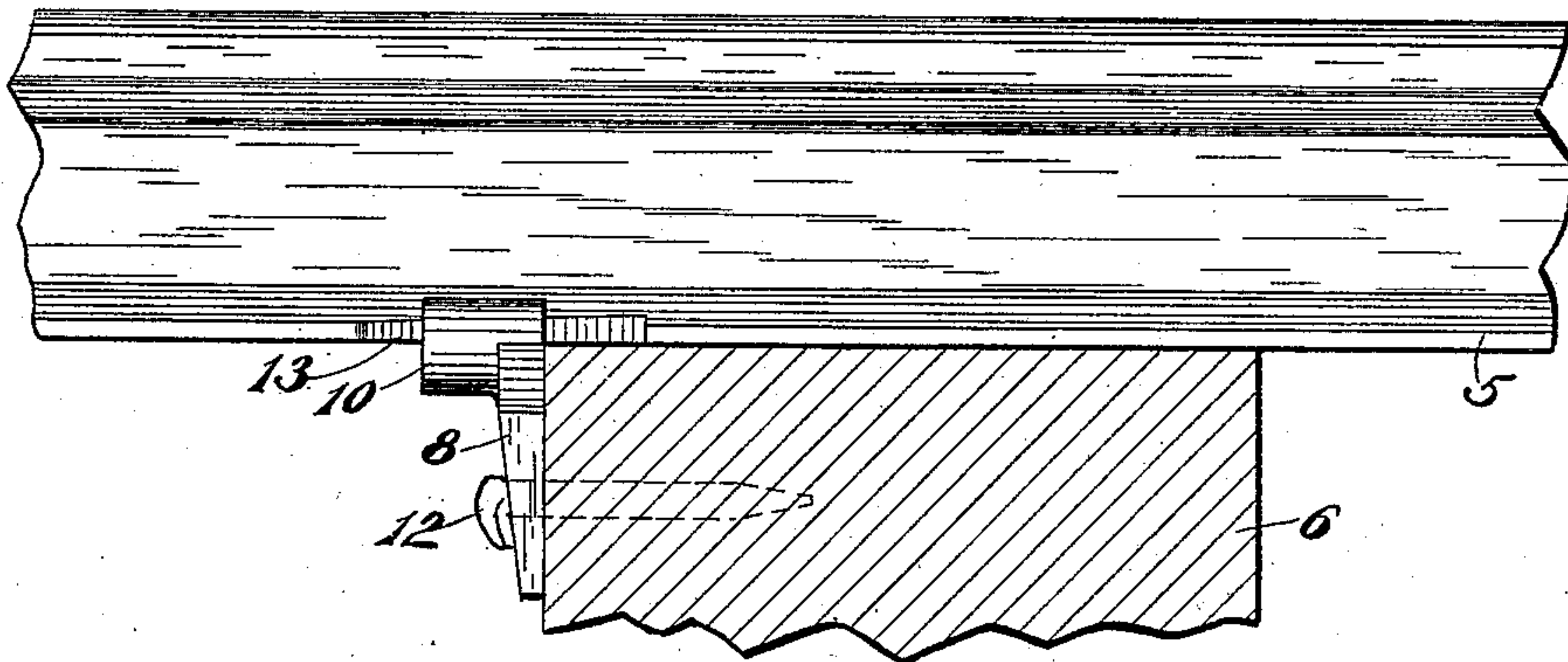


FIG. 2.

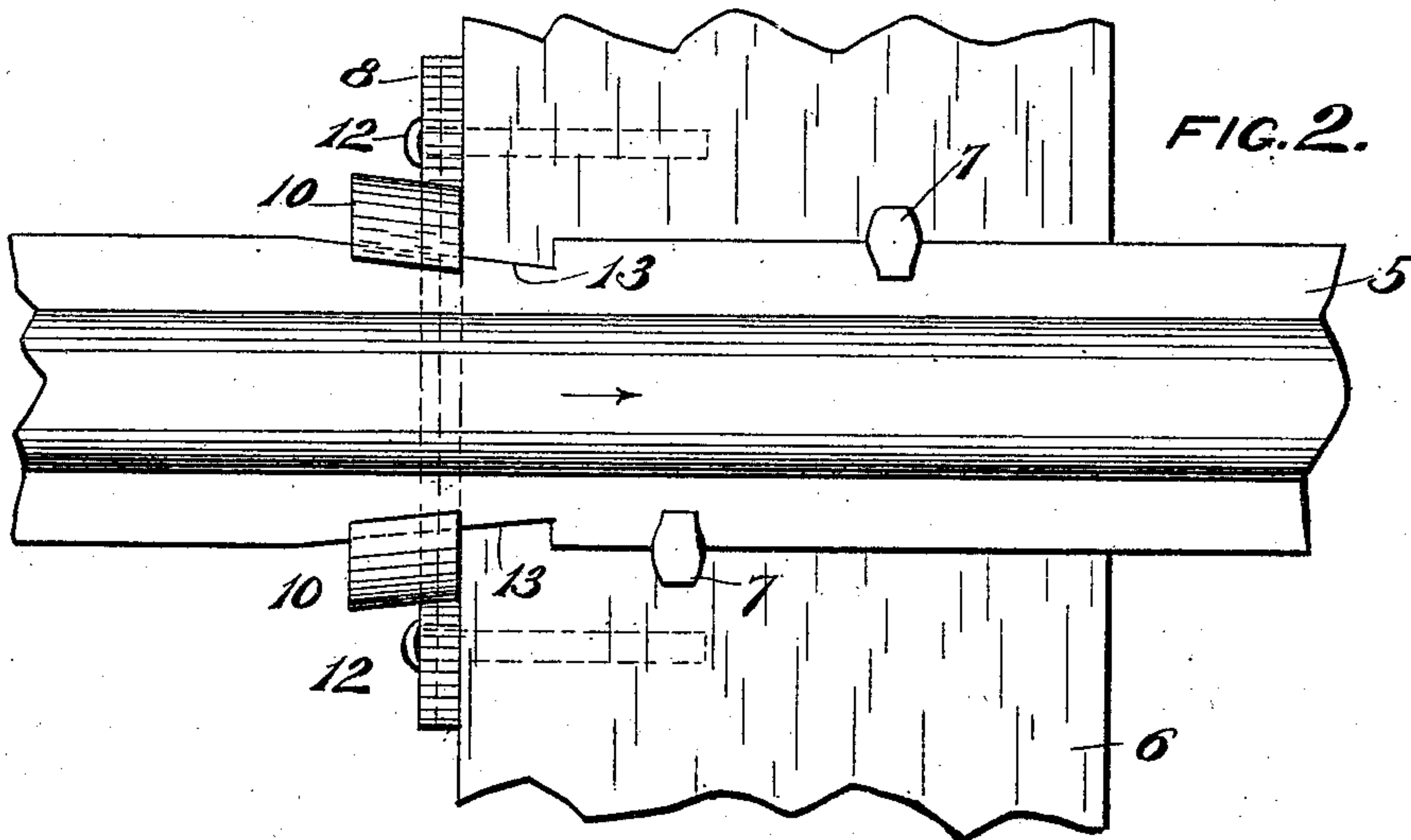


FIG. 3.

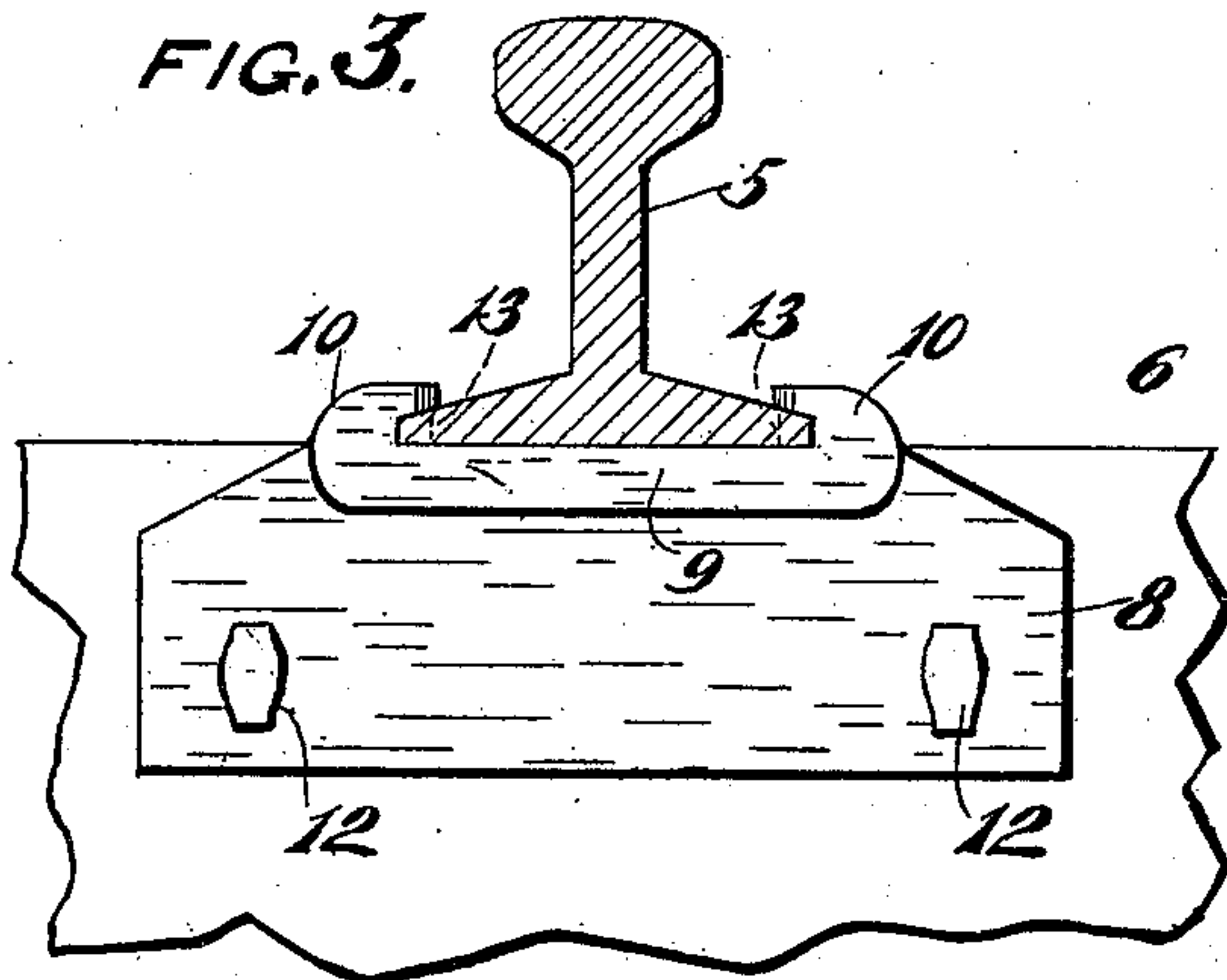
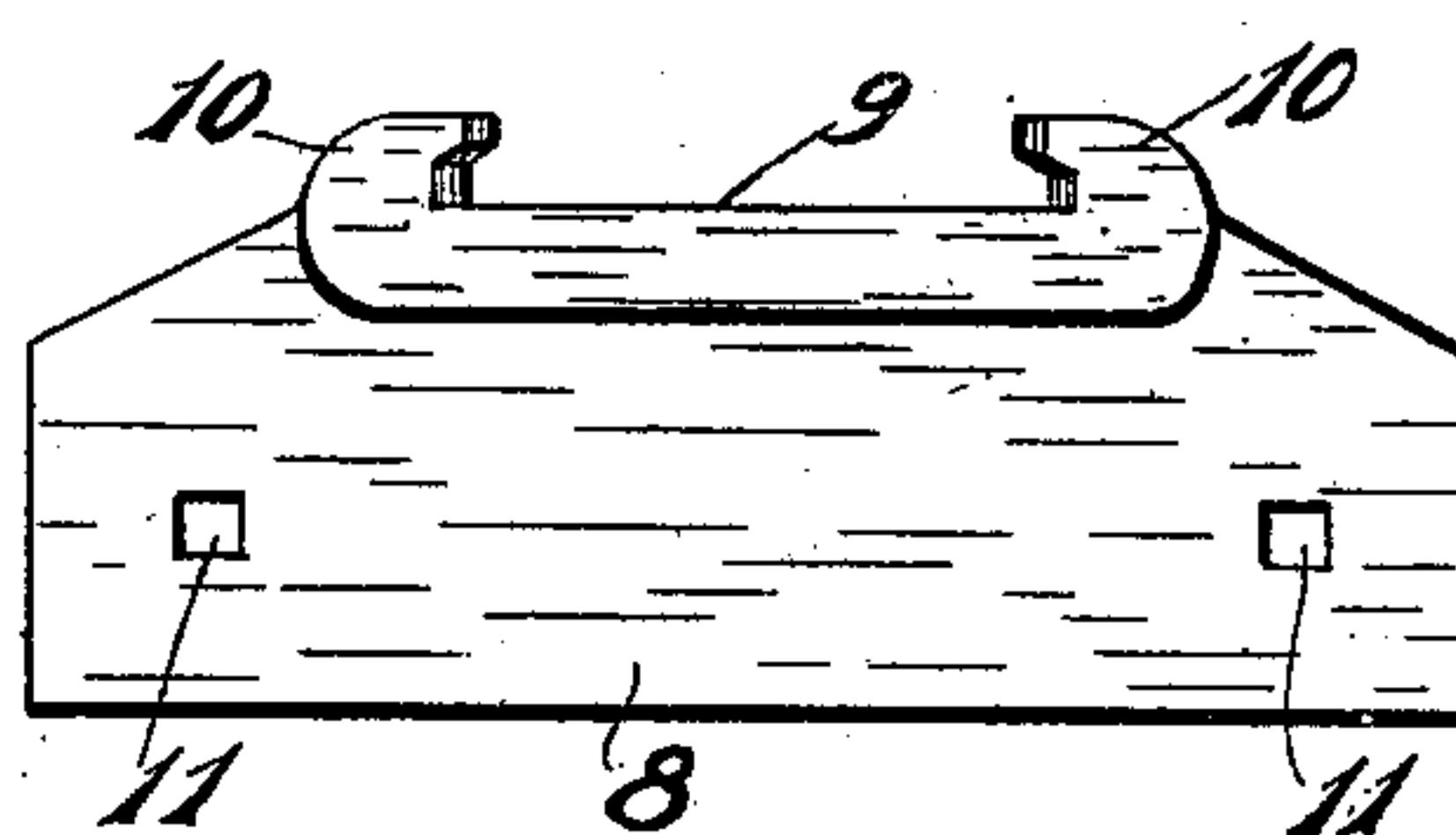


FIG. 4.



WITNESSES.

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2 SHEETS—SHEET 2.

FIG. 5.

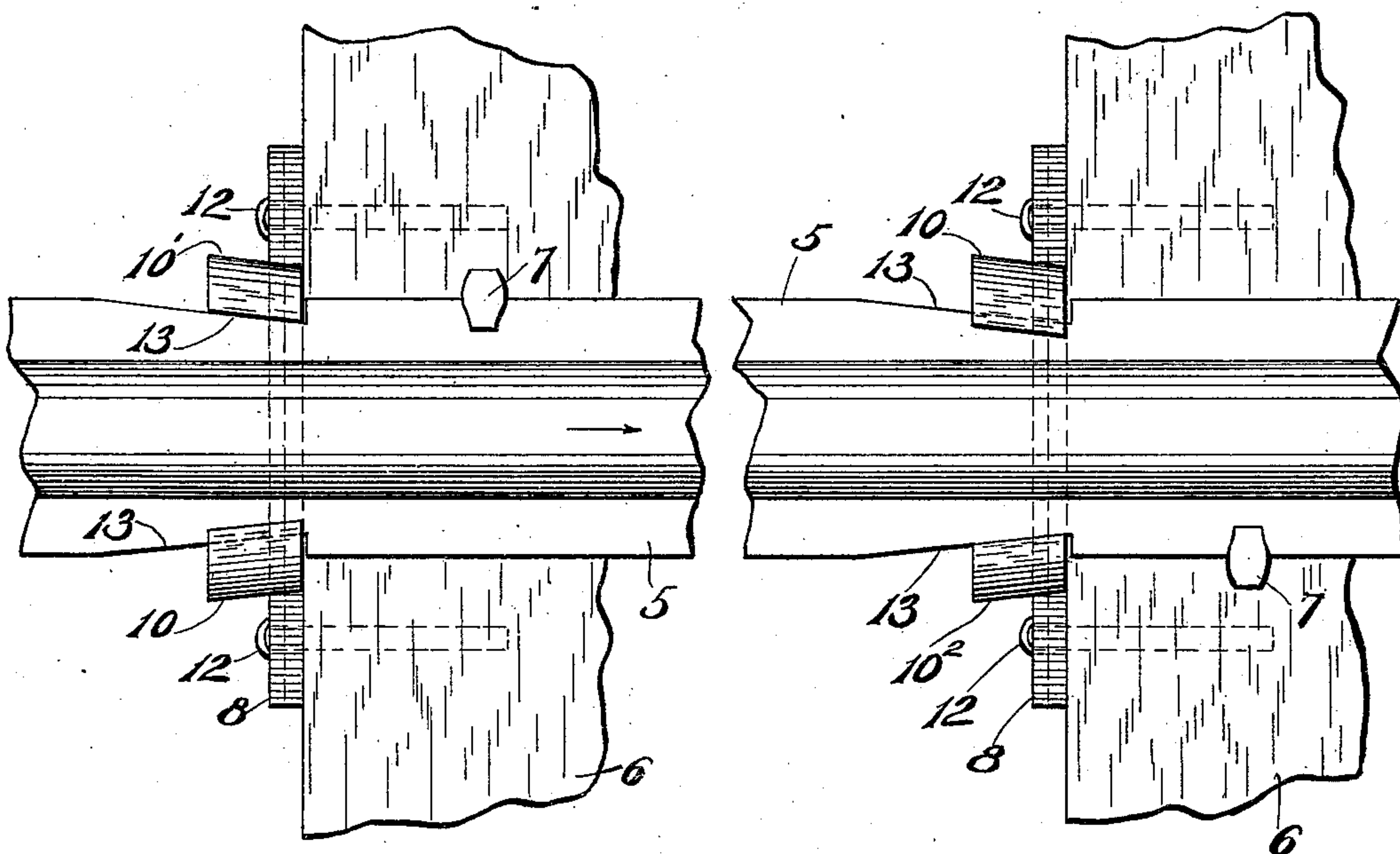


FIG. 6.

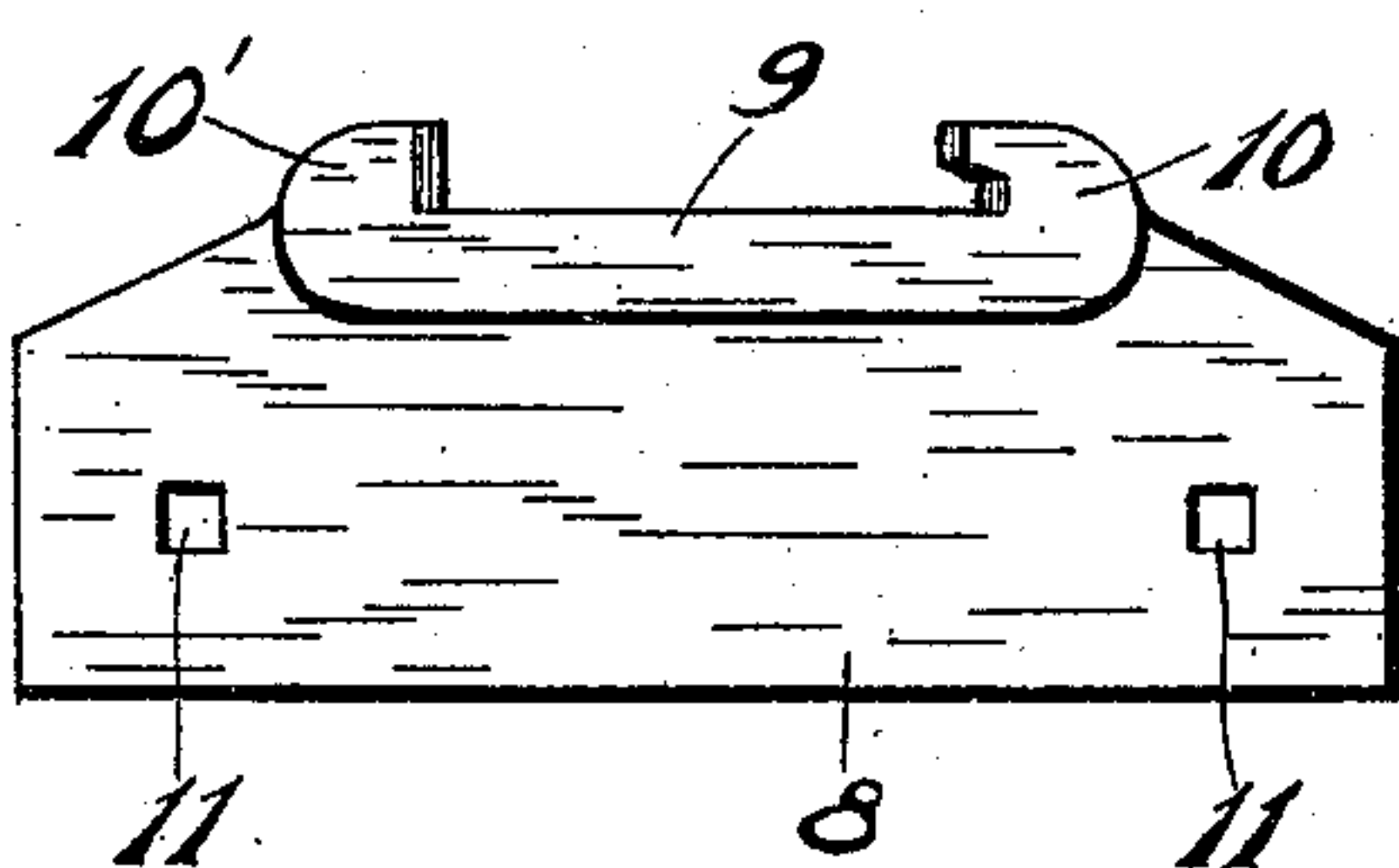
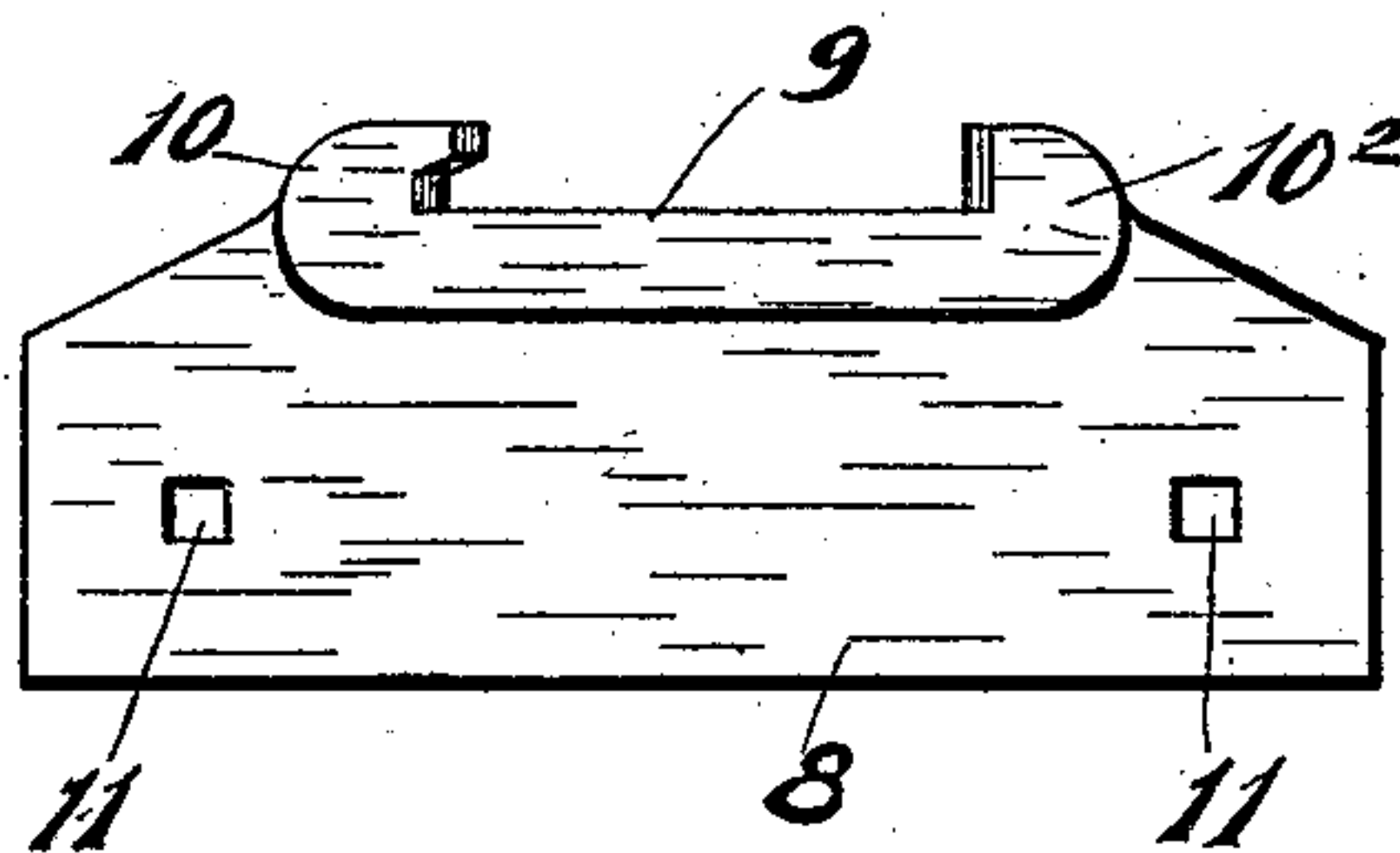


FIG. 7.



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UNITED STATES PATENT OFFICE.

CHRISTIAN WENZELL, OF RACINE, WISCONSIN.

ANTICREEPER FOR RAILWAY-RAILS.

No. 929,061.

Specification of Letters Patent.

Patented July 27, 1909.

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To all whom it may concern:

Be it known that I, CHRISTIAN WENZELL, residing in Racine, in the county of Racine and State of Wisconsin, have invented new and useful Improvements in Anticreepers for Railway-Rails, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in anti-creeper for rails.

The primary object of the invention is to provide a construction whereby not only are the rail sections prevented from creeping longitudinally, but furthermore the rail sections are prevented from spreading laterally and also prevented from moving up or down at the joints.

The invention furthermore has for an object the provision of a construction wherein the anti-creeper is composed of one member which may be constructed from a single piece and in one casting, the only other requirement being the formation of co-acting notches in the base of the rail, whereby simplicity is secured and a great saving and expense effected.

With the above primary, and other incidental, objects in view, the invention consists of the devices and parts, or their equivalents, as hereinafter set forth.

In the accompanying drawing, Figure 1 is a side elevation of a rail equipped with my improvements, the tie being shown in cross section; Fig. 2 is a plan view of Fig. 1; Fig. 3 is a cross section through the rail looking against one side of the anti-creeper; Fig. 4 is a detail view in side elevation of the anti-creeper; Fig. 5 is a plan view of a modified form of construction, parts broken away; Fig. 6 is a detail view of one of the anti-creeper devices used in connection with the Fig. 5 construction; and Fig. 7 is a detail view of the companion anti-creeper of the modified form.

Referring to the drawing, the numeral 5 indicates a railway rail, and 6 the usual cross tie to which the rail is secured by means of spikes 7 driven into the tie and having their heads engaging over the base of the rail.

The anti-creeper consists of a flat plate 8 having at its upper edge a seat extending outwardly from said upper edge in a direction away from the tie, said seat comprising a flat base portion 9 and turned over edges or flanges 10, 10, the inner or opposed faces of

said turned over edges or flanges being beveled so as to converge in the direction of the longitudinal line of travel of the cars over the rails. These side edges or flanges are also preferably turned sufficiently at their upper edges to extend slightly over the upper side of the base of the rail. The plate 8 is adjusted and secured to that side of the tie which is first reached by a train traveling over the rails. As a means for securing the plate, the said plate may be provided with bolt holes 11 for the passage therethrough of bolts 12 which are driven into the tie.

In order to adapt my improved form of anti-creeper for successful use in connection with a rail, it is necessary to cut or notch out the side edges of the base of the rail at opposite points, as indicated by the numerals 13, 13, with the side walls of said notched out portions on a slant outwardly in a line opposite in direction to the longitudinal line of travel of the cars over the rails. The rail is adjusted over the tie so that the notched out portions 13 of said rail are in position to be engaged by the turned over edges or flanges 10 of the seat of the anti-creeper, as clearly shown in the drawing. By this adjustment and arrangement of the parts the beveled walls of the flanges 10 are engaged with the correspondingly beveled walls of the notches 13. The result is that any tendency of the rails to creep by reason of the cars traveling over the rails in the direction of the arrow (Fig. 2) is counteracted by the dove-tailed or wedging engagement between the flanges 10 and the beveled walls of the notches 13. Indeed, the construction is such that with the travel of the cars over the rails a tighter wedging engagement is secured, whereby the danger of longitudinal creeping of the rails is entirely obviated.

Not only is my improved construction a safe guard against longitudinal creeping of the rails, but furthermore, by reason of the fact that each rail is held between the flanges 10 of the anti-creeper, spreading or lateral separation of the rails is effectually guarded against. Where the ordinary spikes are employed, these spikes move up and down with the rails and thereby soon work loose, and hence there is, under such circumstances, nothing to prevent the spreading or lateral movement of the rails. Still further, by reason of the fact that the turned over edges or flanges 10 extend slightly over the bases of the rails, up and down move-

ment of said rails at the joints, which is now so frequent, is avoided, inasmuch as the flanges 10, even though the spikes become loose, effectually prevent such up and down movement.

Another important advantage of my invention is its great simplicity and consequent inexpensiveness. It will be seen that it merely consists of the plate 8 and the seat formation at the upper edge of said plate, and as this plate and its upper seat can be cast in one piece, it is obvious that the construction involves simplicity and inexpensiveness to the maximum, inasmuch as the only other requirement is the formation of the notches in the side edges of the base of the rail, which, if desired, can be accomplished by a hand machine, either by punching or grinding, after the rails are finished and before being spiked down.

The form of construction illustrated on Sheet 2 is similar in all respects to the other form of construction, excepting that in the modified form only one of the flanges is provided with the turned over upper edge. In view of the fact that the flanges 10 of each plate of the Sheet 1 form of construction are both provided with the turned over portions or intumed lips at their upper edges, it is necessary, in order to adjust the anti-creeper devices to the rail, that said devices not only be adjusted at the shouldered ends of the notches 13, but that also the anti-creeper devices be so constructed that the inner beveled faces of the opposite flanges are such a distance apart that when the inner bevel face of one flange is adjusted against the slanting edge of one of the notches 13, the intumed lip of the opposite flange 10 will clear the inclined edge of the opposite notch 13. It, therefore, follows that when the anti-friction plate of the Sheet 1 form of construction is adjusted to place, it is necessary, before there is a close fit, to slide the anti-friction device in a direction longitudinally away from the shouldered ends of the notches 13. This, therefore, takes up a considerable portion of the length of the wedging surfaces, and renders it possible to secure a wedging action only for a limited distance longitudinally. By the construction shown on Sheet 2, however, wherein the intumed lip is omitted from one of the flanges 10 of each plate 8, each plate may be so constructed that the opposed beveled faces of the flanges thereof may be brought closer together than in the Sheet 1 form of construction, and hence it is only necessary to slide the plate 8 a limited distance longitudinally before a tight fit is secured, whereby a considerably greater longitudinal extent of wedging action is secured.

Referring to Sheet 2, it will be seen from Fig. 5 that in case of each plate 8, one of the

flanges, designated 10' is without the intumed lip, while the opposite flange thereof is provided with said lip. In case of the other plate a similar arrangement is provided, excepting that the flange which is without the lip, and designated 10², is faced oppositely to the flange 10' of the first referred to plate. This same alternating arrangement is provided throughout the entire series of plates.

What I claim as my invention is:

1. In an anti-creeper, the combination of a tie, a rail extending across the tie, and provided in opposite side edges with wedging surfaces, and a plate adapted to be adjusted against and secured to the side of the tie, said plate provided with upwardly extending flanges, the opposed faces of said flanges wedgingly fitting the wedging surfaces of the base of the rail, the coacting wedging surfaces of the flanges and of the rail base being so arranged that the travel of the cars over the rail in one direction will increase the wedging action of said surfaces.

2. In an anti-creeper, the combination of a tie, a rail extending across the tie, the base of said rail provided at opposite edges with longitudinal wedging surfaces, said surfaces slanting or beveling outwardly in a line opposite in direction to the longitudinal line of travel of the cars over the rail, and a plate adjusted against and secured to the side of the tie, said plate provided with upwardly extending flanges, the opposed faces thereof being beveled or slanted outwardly in a direction corresponding to the direction of the beveling or slanting outwardly of the wedging surfaces of the rail base.

3. In an anti-creeper, the combination of a tie, a rail extending across the tie, the base of said rail provided at opposite edges with longitudinal wedging surfaces, said surfaces slanting or beveling outwardly in a line opposite in direction to the longitudinal line of travel of the cars over the rail, and a plate adjusted against and secured to the side of the tie, said plate provided with upwardly extending flanges, said flanges turned inwardly at their upper edges toward each other to engage over the base of the rail, and the opposed faces of the flanges being beveled or slanted outwardly in a direction corresponding to the direction of the beveling or slanting outwardly of the wedging surfaces of the rail base.

4. In an anti-creeper, the combination of a tie, a rail extending across the tie, the base of said rail at opposite edges being notched out, the longitudinal walls of said notches slanting or beveling outwardly in a line opposite in direction to the longitudinal line of travel of the cars over the rail, and a plate adjusted against and secured to the side of the tie, said plate provided with upwardly extending flanges, the opposed faces thereof

being beveled or slanted outwardly in a direction corresponding to the direction of the bevel or slant outwardly of the longitudinal walls of the notches.

5 5. In an anti-creeper, the combination of a tie, a rail extending across the tie, the base of said rail provided at opposite edges with longitudinal wedging surfaces, said surfaces slanting or beveling outwardly in a line opposite in direction to the longitudinal line of travel of the cars over the rail, and a plate
10 adjusted against and secured to the side of the tie, said plate provided at its upper edge with a seat outstanding laterally therefrom, and comprising a base portion and upwardly
15 extending flanges, the opposed faces of the flanges beveling or slanting outwardly in a direction corresponding to the direction of the bevel or slant outwardly of the wedging
20 surfaces of the rail base.

6. In an anti-creeper, the combination of a tie, a rail extending across the tie, the base of said rail at opposite edges being notched out, the longitudinal walls of said notches
25 slanting or beveling outwardly in a line opposite in direction to the longitudinal line of travel of the cars over the rail, and a plate adjusted against and secured to the side of the tie, and provided at its upper edge with
30 a seat outstanding laterally from the plate, and comprising a base portion and upwardly extending flanges, the opposed faces of the flanges beveling or slanting outwardly in a direction corresponding to the direction of
35 beveling or slanting outwardly of the longitudinal walls of the notches.

7. In an anti-creeper, the combination of a tie, a rail extending across the tie, the base of said rail at opposite edges being notched
40 out, the longitudinal walls of said notches slanting or beveling outwardly in a line opposite in direction to the longitudinal line of travel of the cars over the rail, and a plate adjusted against and secured to the side of
45 the tie, and provided at its upper edge with a seat outstanding laterally from the plate, and comprising a base portion and upwardly extending flanges, the upper edges of said flanges being turned inwardly toward each
50 other so as to engage over the rail base, and the opposed faces of said flanges being beveled or slanted outwardly in a direction corresponding to the direction of the bevel or slant outwardly of the longitudinal walls of the
55 notches.

8. In an anti-creeper, a plate adapted to be adjusted against and secured to the side of a railway tie, said plate provided at its upper edge with upwardly extending flanges,
60 the opposed faces of said flanges converging in the direction of the longitudinal line of travel of the cars over the rails, and being spaced such a distance apart as to bear directly against and wedgingly fit the side
65 edges of the base of a railway rail.

9. In an anti-creeper, a plate adapted to be adjusted against and secured to the side of a railway tie, said plate provided at its upper edge with upwardly extending flanges, the upper edges of said flanges being turned
70 inwardly toward each other, and the opposed faces of said flanges converging in the direction of the longitudinal line of travel of the cars over the rails, and being spaced such a distance apart as to bear directly against and
75 wedgingly fit the side edges of the base of a railway rail.

10. In an anti-creeper, a plate adapted to be adjusted against and secured to the side of a railway tie, said plate provided at its
80 upper edge with a laterally extending seat, comprising a base portion and upwardly extending flanges, the opposed faces of said flanges converging in the direction of the longitudinal line of travel of the cars over
85 the rails, and being spaced such a distance apart as to bear directly against and wedgingly fit the side edges of the base of a railway rail.

11. In an anti-creeper, a plate adapted to
90 be adjusted against and secured to the side of a railway tie, said plate provided at its upper edge with a laterally outstanding seat, comprising a base portion and upwardly extending flanges, the upper edges of the flanges
95 being turned inwardly toward each other, and the opposed faces of said flanges converging in the direction of the longitudinal line of travel of the cars over the rails, and being spaced such a distance apart as to
100 bear directly against and wedgingly fit the side edges of the base of a railway rail.

12. In an anti-creeper, the combination of ties, rails extending across the ties, the base of each rail provided at opposite edges with
105 longitudinal wedging surfaces, said surfaces slanting or beveling outwardly in a line opposite in direction to the longitudinal line of travel of the cars over the rails, plates adjusted against and secured to the sides of the
110 ties, said plates provided at opposite ends with upwardly extending flanges, the opposed faces of the flanges being beveled or slanted outwardly in a direction corresponding to the direction of the beveling or slanting
115 outwardly of the wedging surfaces of the rail base, and one of the flanges of each plate being turned inwardly at its upper edge to form an inwardly extending lip adapted to engage over the base of the rail, the inwardly
120 extending lip of one of the anti-creeper devices extending from the flange thereof opposite to the flange of the other plate from which the lip extends, and so on alternately throughout the series.
125

13. In an anti-creeper, a plate adapted to be adjusted against and secured to the side of a railway tie, said plate provided at its upper edge with upwardly extending flanges,
130 the opposed faces of said flanges converging

in the direction of the longitudinal line of
travel of the cars over the rails, and being
spaced such a distance apart as to bear di-
rectly against and wedgingly fit the side
5 edges of a base of a railway rail, and one of
said flanges having its upper end turned in-
wardly to form an inwardly extending lip.

In testimony whereof, I affix my signature,
in presence of two witnesses.

CHRISTIAN WENZELL.

Witnesses:

R. S. C. CALDWELL,
ANNA F. SCHMIDTBAUER.