No. 633,132. Patented Sept. 19, 1899.

A. W. GRIFFITH.

REST PLATE FOR RAILWAY RAILS.

(Application filed Dec. 30, 1898.)

(No Model.)

FIG. 1.

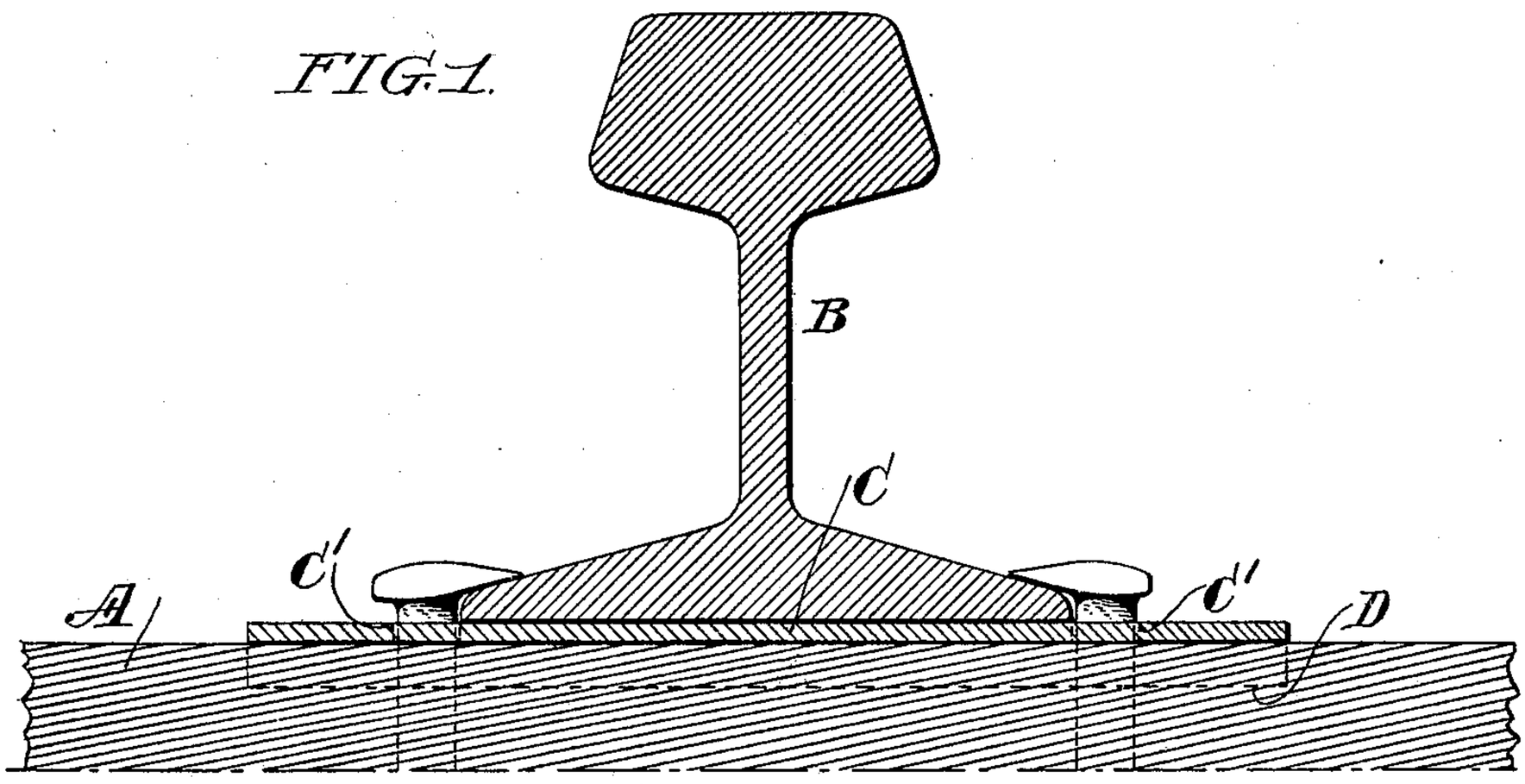


FIG. 2.

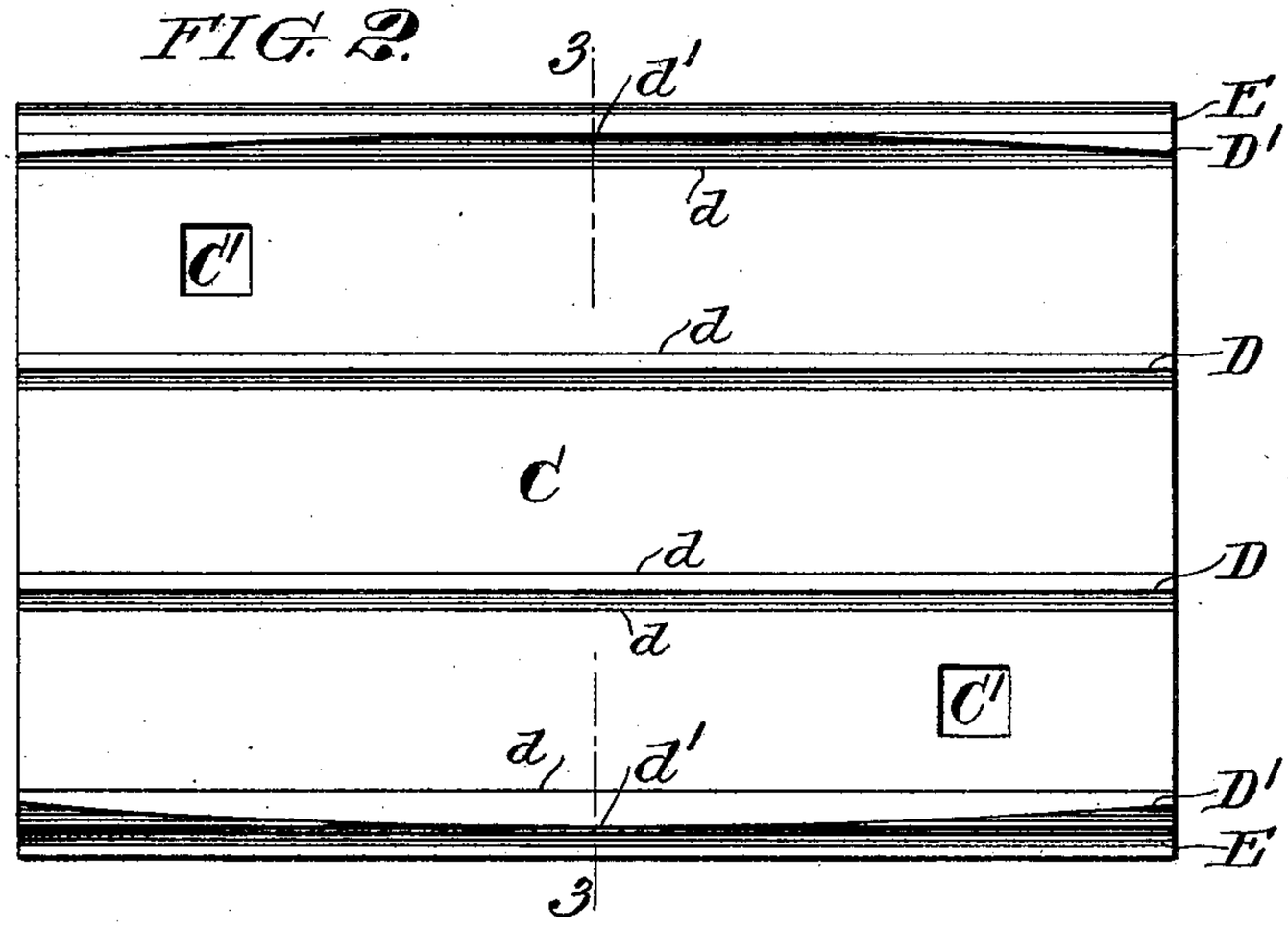
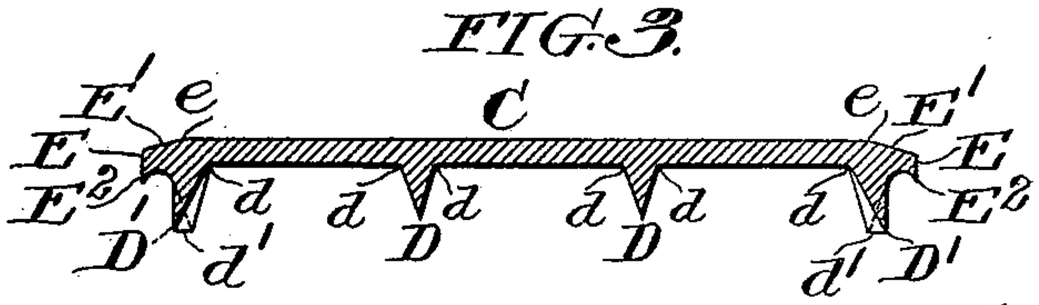
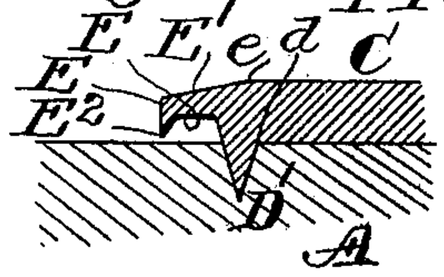


FIG. 3.



Witnesses:
Henry Drury
H. Howard

FIG. 4.



Inventor:
Asa W. Griffith
by his Atty,
Francis J. Chambers

UNITED STATES PATENT OFFICE.

ASA W. GRIFFITH, OF WILMINGTON, DELAWARE, ASSIGNOR TO THE DIAMOND STATE IRON COMPANY, OF SAME PLACE.

REST-PLATE FOR RAILWAY-RAILS.

SPECIFICATION forming part of Letters Patent No. 633,132, dated September 19, 1899.

Application filed December 30, 1898. Serial No. 700,720. (No model.)

To all whom it may concern:

Be it known that I, ASA W. GRIFFITH, a citizen of the United States of America, residing in the city of Wilmington, in the county of New Castle, in the State of Delaware, have invented a certain new and useful Improvement in Rest-Plates for Railway-Rails, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My invention relates to the construction of rest-plates for railway-rails, and has for its object to improve the construction of such plates as heretofore made, particularly in providing them with water-shedding flanges adapted to keep the water out of contact with the gripping-flanges of the plate and in providing them with angularly-set gripping-flanges of a peculiar form at once efficient in holding the plate in place and of a character which can be readily and conveniently made.

The nature of my improvements will be best understood as described in connection with the drawings in which they are illustrated, and in which—

Figure 1 is a cross-section through a rail and tie, showing the rest-plate in position between them. Fig. 2 is a plan view of my rest-plate viewed from the bottom. Fig. 3 is a cross-sectional view taken on the line 3 3 of Fig. 2, and Fig. 4 is an end sectional view of a portion of a somewhat modified form of rest-plate.

A indicates the tie, and B the rail.

C is the rest-plate, formed, as shown, with spike-holes C′ C′, extending through it, and with tie-gripping flanges D D, &c., the outermost flanges being distinguished by the symbol D′. I propose to make my rest-plate out of wrought iron or steel and by the action of rolls adapted to form at the same time the plate and flanges, and preferably long bars will be rolled into the cross-sectional form of the rest-plate and then cut into sections, forming the individual rest-plates. The flanges D′ D′ will therefore for convenience of manufacture be made parallel to each other and especially the lines of junction indicated at *d* between the flanges and the under side of the plate will be parallel. For certain purposes, however, it is preferable that one or more of the flanges should be set so as to give it a slight angle to the center line of the tie, which substantially corresponds with the direction of the fiber of the wood, and I therefore bend some of the flanges D above their line of junction with the plate, so that they will run at an angle to instead of parallel to each other. Thus, as shown in Fig. 2, the outer flanges D′ D′ have their points *d′* curved outward at the center, and this is my preferred construction, and is a construction, moreover, which can be readily secured in manufacture by the simple process of bending the outer flanges outward at the center.

In order to keep water on rainy days from coming readily into contact with the outer flanges D′ and finding its way into the grooves formed in the tie by said flanges, I make my rest-plate with laterally-extending flanges E E, extending beyond the outer biting-flanges D′ and formed with downwardly-extending lips E^2, from which the water falling on the plate will drip instead of running under the flange and finding its way into contact with the biting-flange. Preferably I make the under side of these water-shedding flanges E lie in a plane somewhat above the plane of the under side of the plate proper, as is indicated, for instance, at E^3 in Fig. 4, and preferably, also, I chamfer the upper face of the flanges E, as indicated at E′, so as to provide an inclined surface down which the water on the plate will flow over the water-shedding flange E with its downwardly-extending lip E^2. It will be obvious that this inclined water-shed will tend to draw the water from the adjacent level parts of the plate and insure that most of the water falling on its surface shall leave it at its flanged ends and not at its unflanged ends. While I prefer to chamfer the tops of the flanges E, as above described, care should be taken not to abridge the flat bearing-surface of the plate proper, which is essential to the provision of an adequate and firm bearing for the rail, and therefore I only carry the chamfers back to lines lying above the flanges D′ D′.

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

1. A rest-plate for rails having flanges, as D D′, for engaging the plate with a tie and

lateral water-shedding flanges E with downwardly-turned edges E^2 extending beyond the outer flanges D′.

2. A rest-plate for rails having flanges, as D D′, for engaging the plate with a tie and lateral water-shedding flanges E with downwardly-turned edges E^2 and their lower faces E^3 lying in a plane above that of the under side of the plate proper extending beyond the outer flanges D′.

3. A rest-plate for rails having a flat upper face and flanges, as D and D′, extending from its lower face and water-shedding flanges E extending from the edges of the plate beyond the outer flanges D′ said flanges having their top faces E′ chamfered from a line lying substantially above the said outer flanges D′.

4. A rest-plate for rails having a flat upper face and flanges, as D and D′, extending from its lower face and water-shedding flanges E extending from the edges of the plate beyond the outer flanges D^4, said flanges having their top faces E′ chamfered from a line lying substantially above the said outer flanges D′ and their outer lower edges E^2 turned downward.

5. A rest-plate for rails having two or more downwardly-extending and downwardly-tapering flanges D D′ each of uniform cross-section throughout, the lines of junction *d* of said flanges with the plate proper being parallel and one or more of said flanges having its or their points or edges *d*′ bent at the center to one side only and so that the points or edges *d*′ will at each side of the center of the plate run at diverging angles to the lines of junction *d*.

6. A rest-plate for rails having two or more downwardly-extending and downwardly-tapering flanges D D′ each of uniform cross-section throughout, the lines of junction *d* of said flanges with the plate proper being parallel and two of said flanges having their points or edges D′ bent at their center in opposite directions and each to one side only substantially as and for the purpose specified.

7. The combination with a rail and wooden tie of a rest-plate C having flanges D D′ projecting into the fiber of the tie and lateral water-shedding flanges E formed with a downwardly-turned outer edge E^2.

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Witnesses:
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