

No. 607,256.

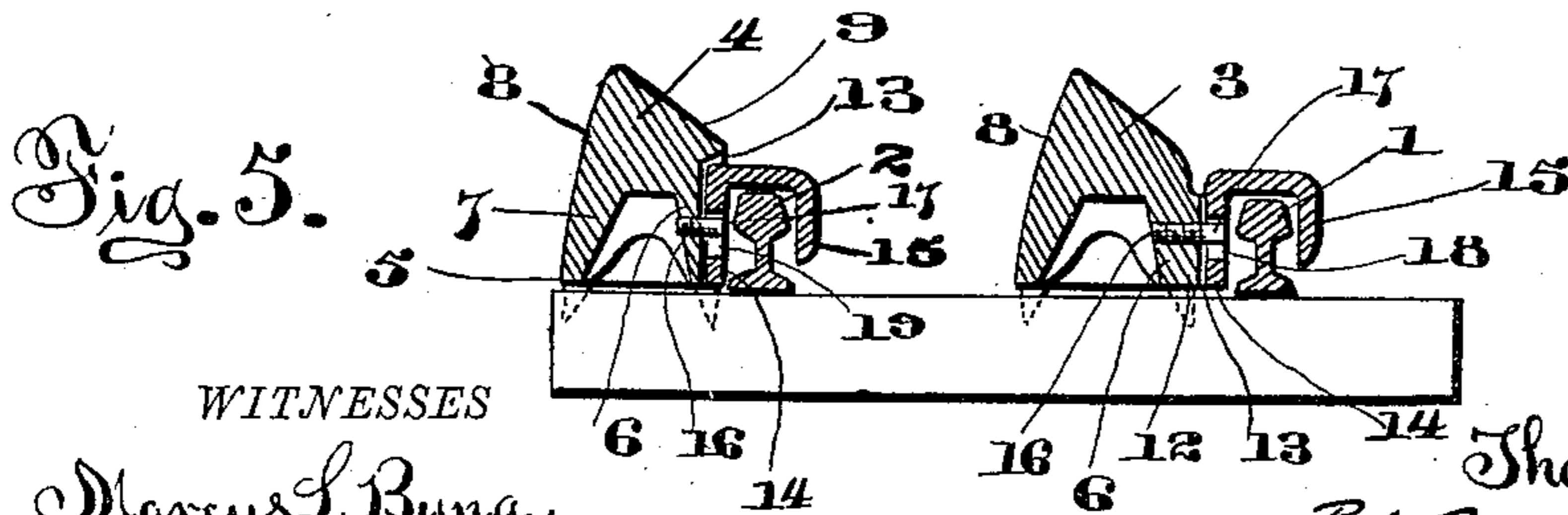
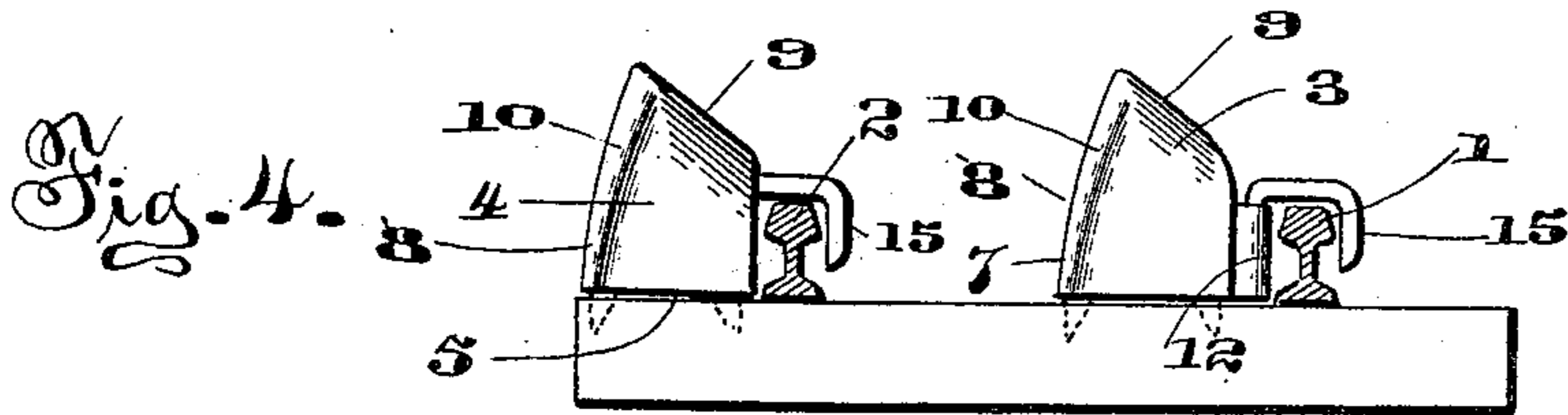
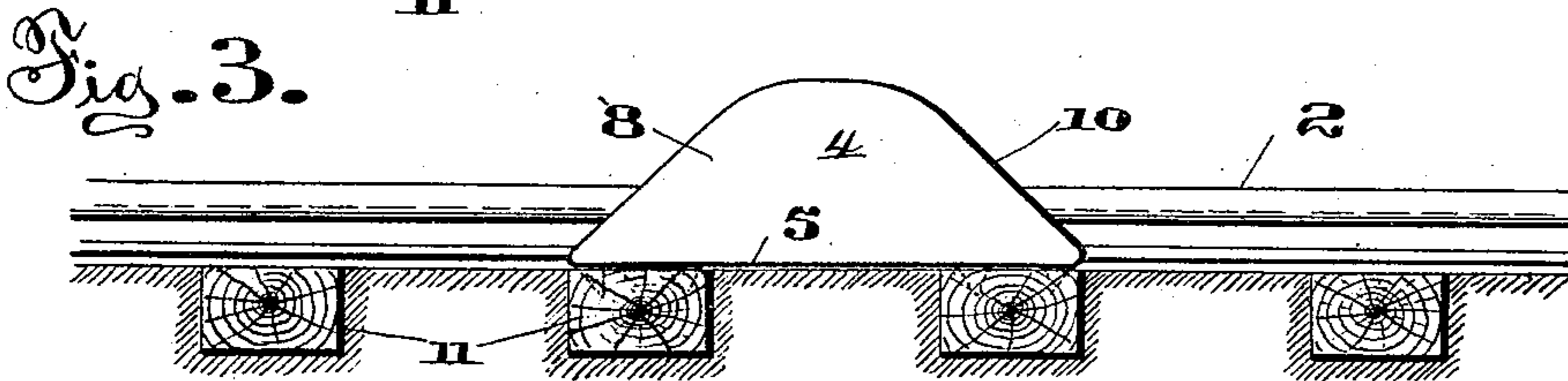
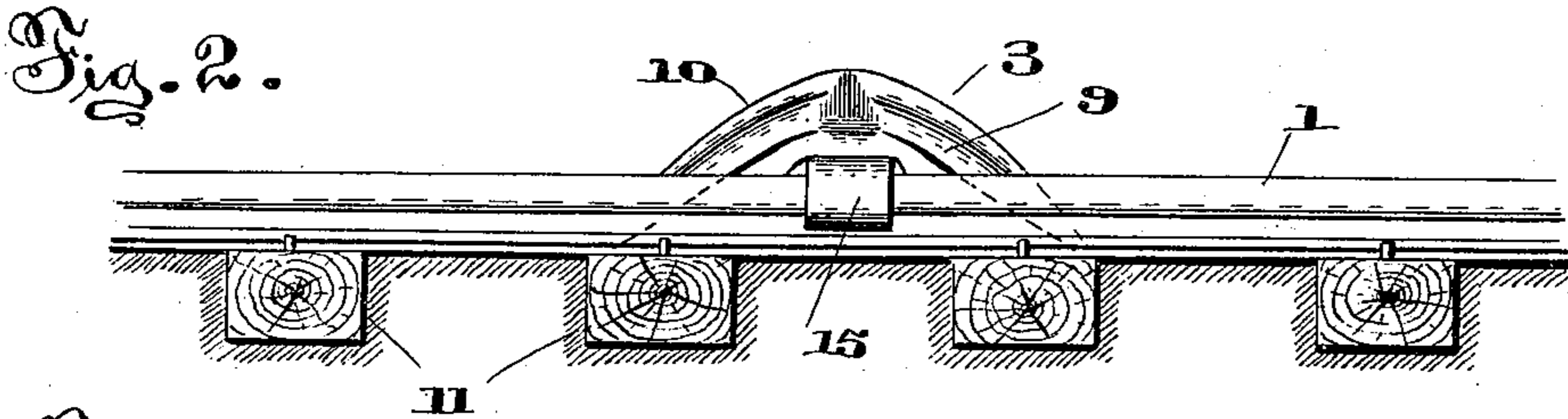
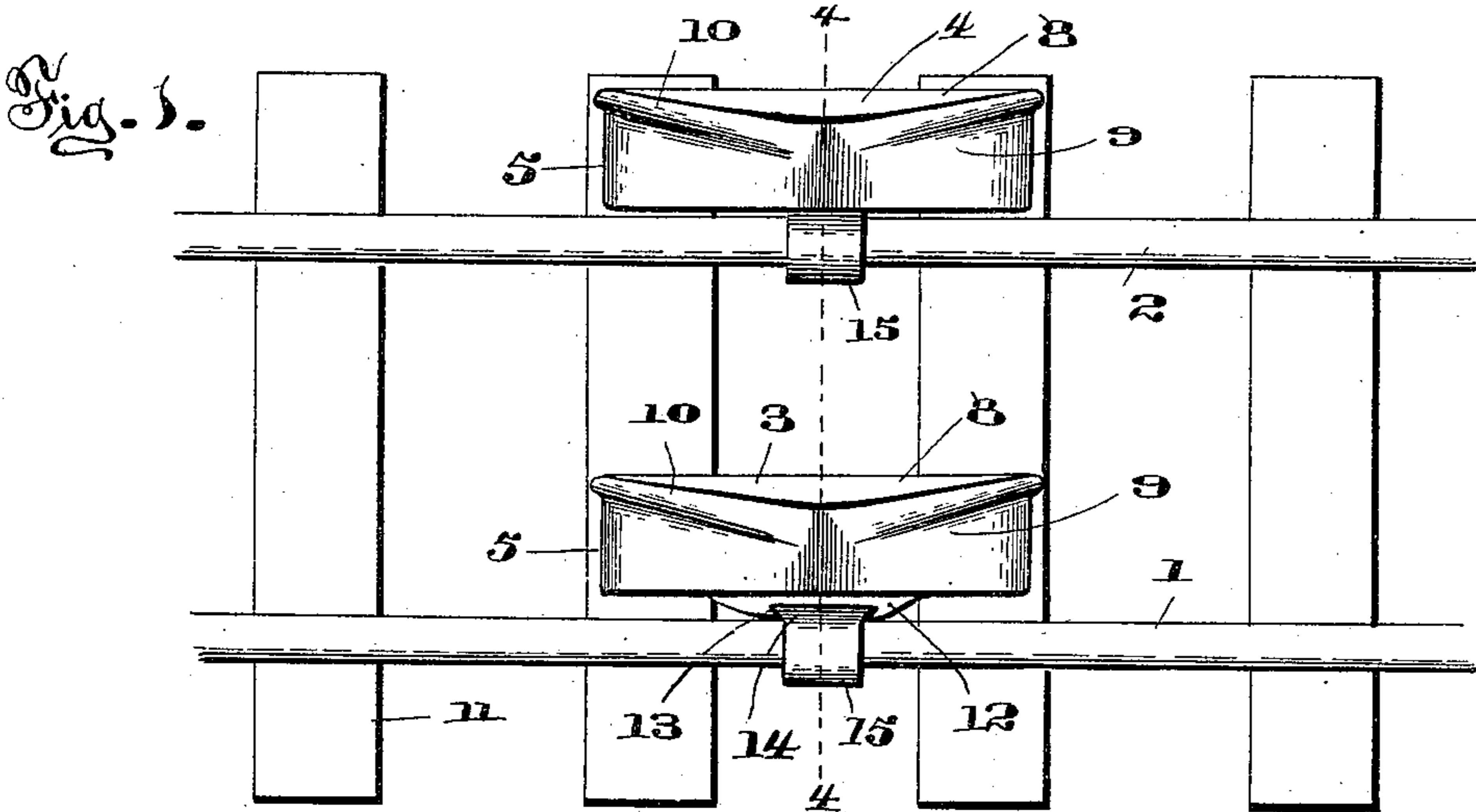
Patented July 12, 1898.

T. MARONEY.
CAR REPLACER.

(Application filed Feb. 2, 1897.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES
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2 Sheets—Sheet 2.

Fig. 6.

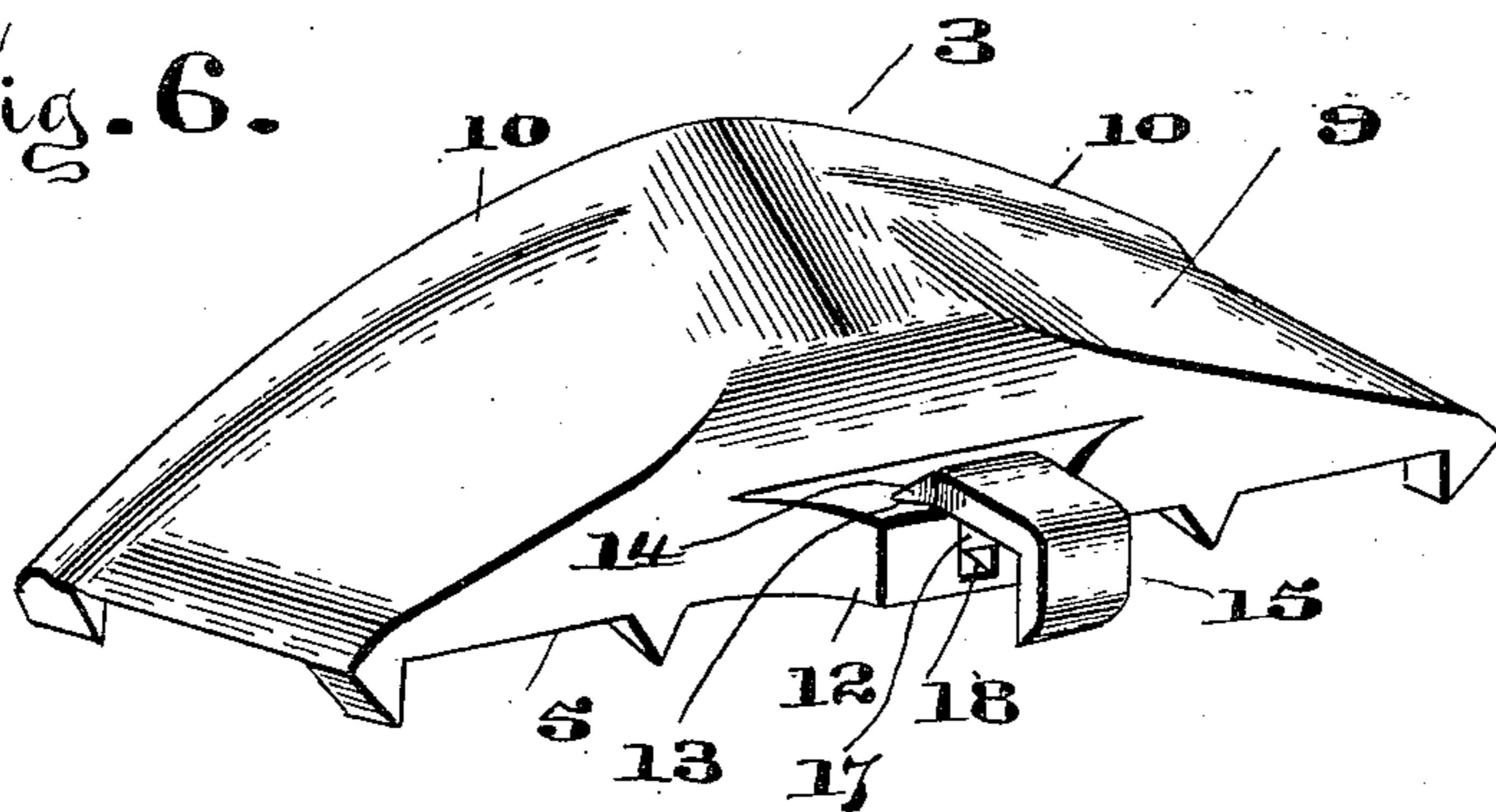


Fig. 7.

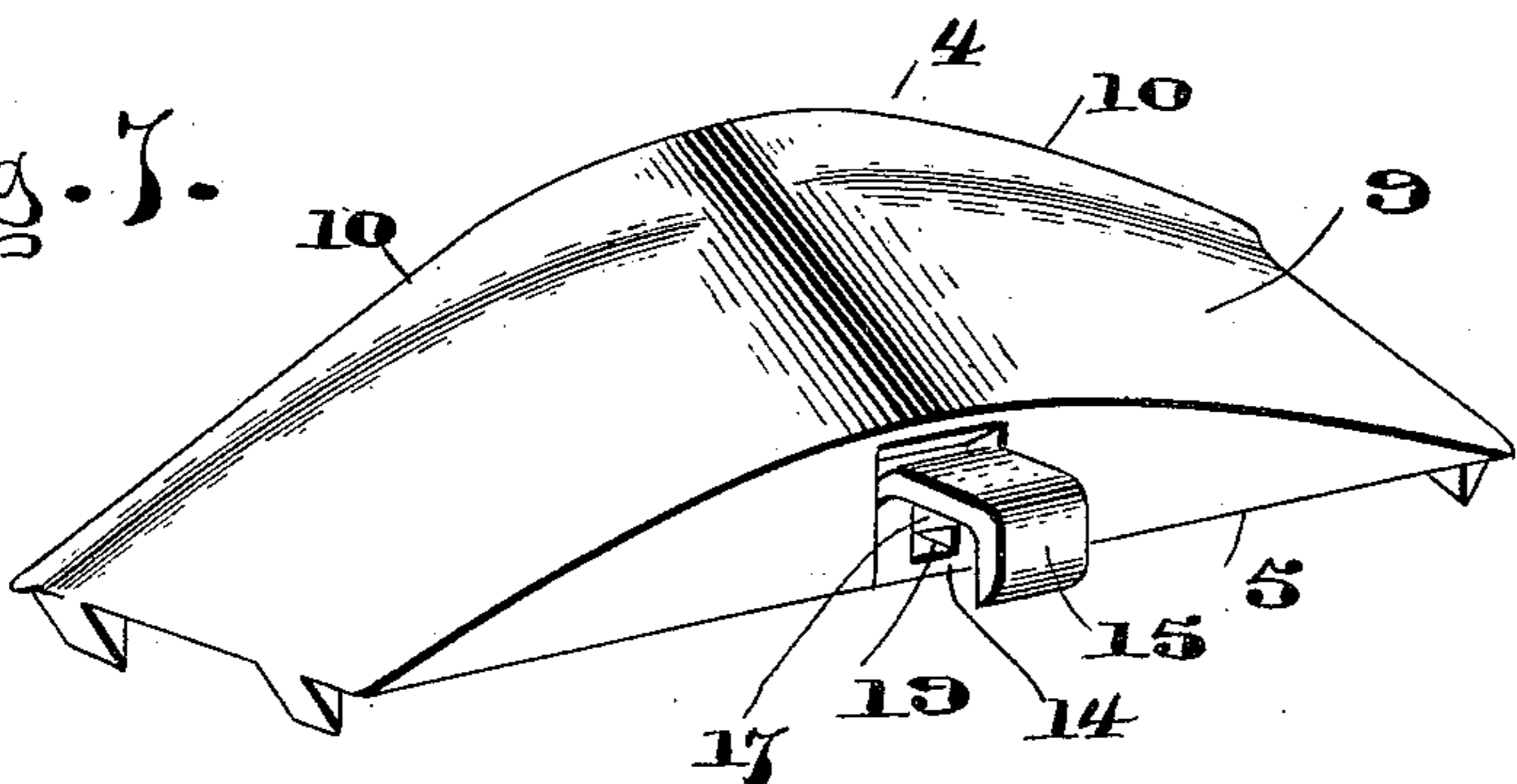


Fig. 8.

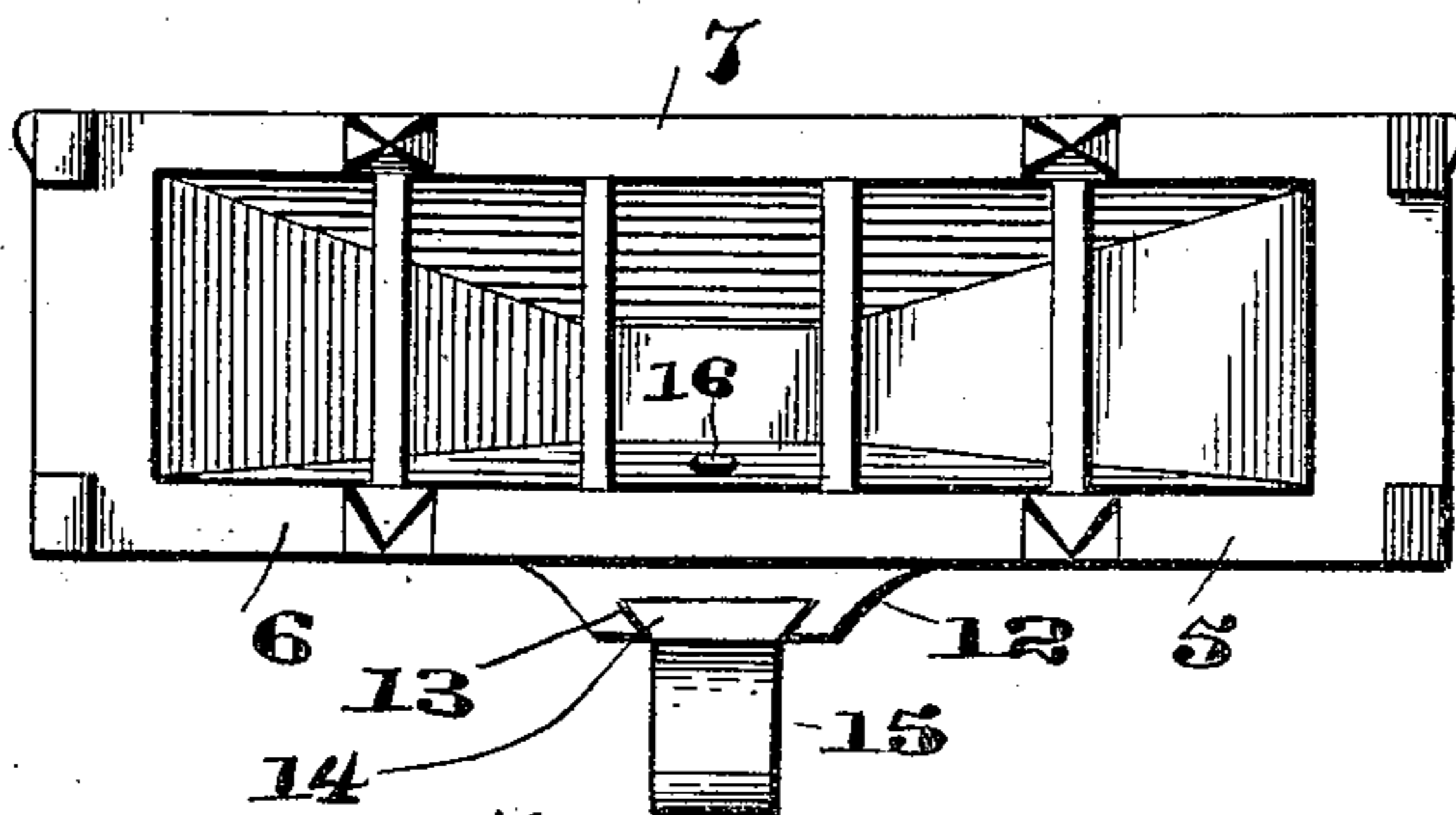
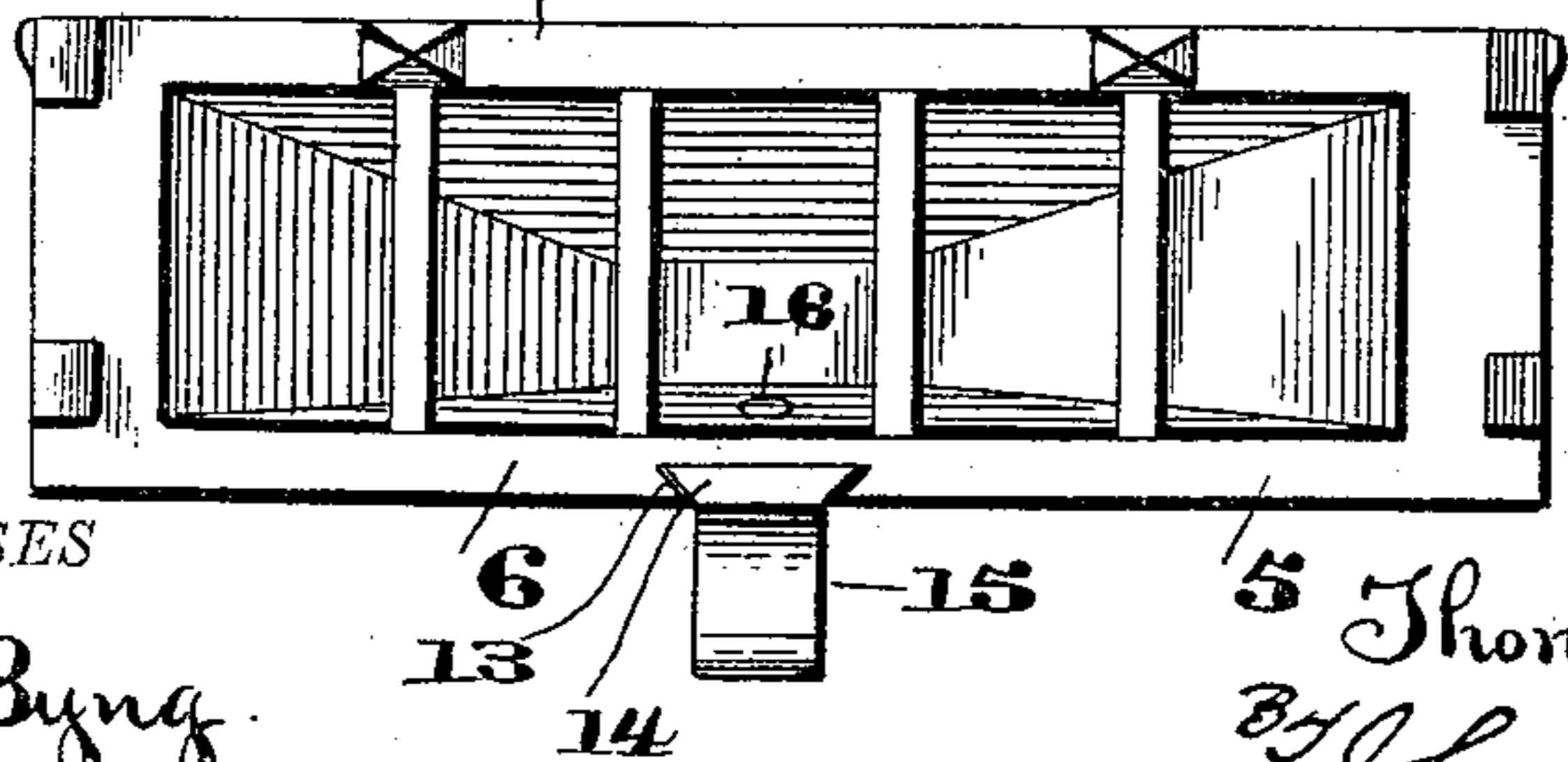


Fig. 9.



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS MARONEY, OF BUFFALO, NEW YORK.

CAR-REPLACER.

SPECIFICATION forming part of Letters Patent No. 607,256, dated July 12, 1898.

Application filed February 2, 1897. Serial No. 621,638. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MARONEY, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Car-Replacers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in car-replacers of the general class known as "wrecking-frogs," and has for its object the production of a pair of frogs which may be readily attached to or detached from a rail, which will be permitted to move under the influence of contraction and expansion due to exposure and inclement weather and thereby eliminate strain upon the rails or warping, twisting, or other derangement, and which will cause a derailed car to be readily replaced upon the rails with facility and with an economical expenditure of power.

To the accomplishment of these and other objects my invention consists in providing a car-replacer or wrecking-frog having a longitudinal curve and a variously laterally inclined bearing-surface with securing mechanism designed to permit slight independent movement of the frog with respect to the rail.

Referring to the figures on the drawings, Figure 1 is a top plan view of a section of railway-track provided with my frogs. Fig. 2 is a side elevation of the subject-matter of Fig. 1. Fig. 3 is a similar view of the opposite side. Fig. 4 is an end elevation of the frogs applied to the rails. Fig. 5 is a transverse section on the line 4 4, Fig. 1. Fig. 6 is a perspective view of the inside frog. Fig. 7 is a similar view of the outside frog. Fig. 8 is a bottom plan view of the inside frog, and Fig. 9 is a similar view of the outside frog.

Referring to the numerals on the drawings, 1 and 2 indicate the "inside" and "outside" rails of a section of track, so called for the reason that through them respectively are secured an inside wrecking-frog 3 and an outside wrecking-frog 4, located, respectively, between the tracks and upon the outer side of the outside rail. The inside frog 3 is cast in steel or other suitable hard metal in the

form illustrated in the drawings, having a preferably rectangular flat base 5, front and rear walls 6 and 7 perpendicular and inwardly inclined, respectively, and having their upper edges 8 and 9 upwardly inclined in different degrees toward the center, at which point the inclines are connected by a medial surface curved longitudinally in different degrees at the back and front to produce a bearing-surface upon the top of the frog, which will be upwardly inclined from the opposite ends of the frogs and will cause a gradually-increasing lateral inclination to a point at the middle of the frog, where the greatest lateral inclination occurs, the upper edge of the front wall or the front edge of the bearing-surface being rounded in gradually-decreasing degree from the center of the frog toward its ends.

10 indicates a flange projecting upwardly at the rear of the bearing-surface and gradually widening from a point at a suitable distance from the ends of the frog to the frog-center, where they merge in the laterally-inclined portion of the surface, permitting an unbroken incline from the rear edge of the frog-center to the rounded edge at the top of the front wall.

The frogs are preferably cast hollow, as illustrated, and are provided upon their bottom surfaces with teeth or projections designed to secure said frogs to the ties 11 of the road-bed.

In so far as the preceding description is concerned both the inside and outside wrecking-frogs are formed alike, with the exception that the highest point of the front wall of the outside frog is not necessarily rounded, as described, and I shall now proceed to a description of the inside-frog-securing mechanism, which differs from the outside-frog mechanism in the manner of arrangement, though not in the general construction.

12 indicates a lateral projection extending from the front wall 6 of the inside frog immediately below the rounded edge, provided with an incline-sided recess 13, designed to constitute the way for a vertically-movable incline-sided slide 14, constituting one side of a rectangular securing-hook 15, designed to be hung over the rail for the purpose of securing the frog thereto. Any suitable means may be provided for slidingly secur-

ing the slide 14 within its way; but I prefer to employ a screw 16, passed through the wall of the frog from its interior and provided with a squared extremity 17, designed to project into a slot 18 in the slide 14. It will be observed that by means of this arrangement of the securing mechanism the rail and frog may move relatively under the influence of cold and heat, as the metal of the rail and frog expand or contract differently under the same conditions, or the frog may be adjusted to rails of various heights, the upper corners of the securing-hooks of each frog being preferably rounded, as illustrated, for a purpose to be made apparent. The construction of the outside frog is identical, as before remarked, with the construction of the inside frog, except that an incline-sided recess or way 19 is provided in the front wall of the outside frog instead of in a projection, as in the case of the inside frog, and the face of the slide 14 is substantially flush with the face of the frog, the securing-hook and its connection being identical with that described.

In use my device is employed as follows: Supposing the car to have been derailed, the frogs are placed in the position indicated in the drawings, being located, respectively, adjacent to the inside of one rail and the outside of the other, and the securing-lugs are driven into the ties by the weight of a passing vehicle, the securing-hooks being hung over the rails to prevent lateral displacement. The car is then propelled toward the frogs until the flanges of the wheels ride upon the incline of the bearing-surfaces. As the flanges progress upon the incline they meet the lateral inclination and gravitate toward the front edges of the frogs. By reason of the projection 12 between the inside frog and the track the flange of the wheel traveling over the surface of the inside frog will gravitate over the rounded portion of the front wall of said frog and will be supported upon the projection before the flange of the opposite wheel has reached the front edge of the outside frog, and will thus be brought to a level with the top of the rail. Continued movement of the car will now cause the flange to gravitate from the end of the projection and between the rail and the frog, and at the same time the flange of the opposite wheel will glide over the securing-hook of the outside frog and readily

drop inside the rail at or about the same time that the flange of the other wheel drops beyond the projection 12 of the inside frog. The front wheels of the truck will in this manner be replaced upon the tracks and the rear wheels will be replaced in a similar manner as the vehicle progresses, the flanges projecting from the rear edges of the frogs serving to guide the flanges of the wheels when they come in contact therewith.

While I have illustrated and described what appears to be a preferable form of my invention, I do not desire to limit myself to the details of construction herein shown and described, as it is obvious that the various inclines and curvatures of the surfaces of the frogs might be varied in degree as experience may dictate.

What I claim is—

1. A frog, provided with a lateral projection or offset adapted to bear against the side edge of the rail, and having mounted therein a vertically-adjustable securing-hook.

2. A frog, having a lateral projection or offset thereon, adapted to bear against the side of the rail, and provided with a groove constituting a guideway, and a securing-hook whose vertical portion is adapted to fit and move within said guideway.

3. A frog, provided with a lateral projection or offset, adapted to bear against the rail, the said offset having a vertical dovetailed groove or recess therein, a laterally-projecting pin located within said recess, and a securing-hook whose vertical portion is adapted to fit and move within said dovetailed groove or recess, and is provided with an elongated slot for the reception of said pin.

4. The combination with a frog provided with an incline-sided recess, of a securing-hook provided with a slot and incline-sided slide, and a screw designed to pierce one wall of the frog and provided with a squared extremity engaging the slot in the slide, substantially as specified.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

THOMAS MARONEY.

Witnesses:

HENRY HAIEN,
FRANK SOWA.