

No. 750,728.

PATENTED JAN. 26, 1904.

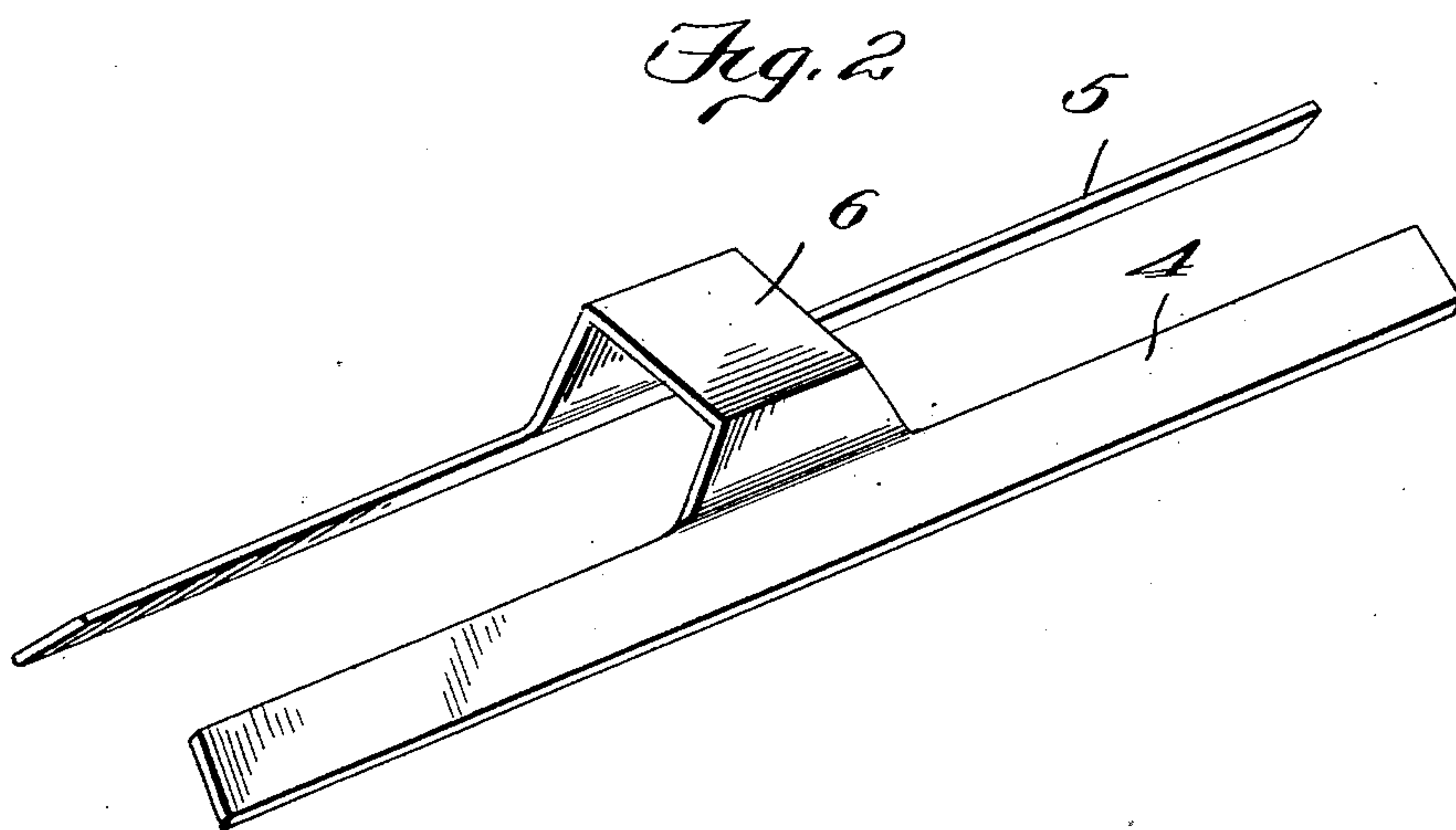
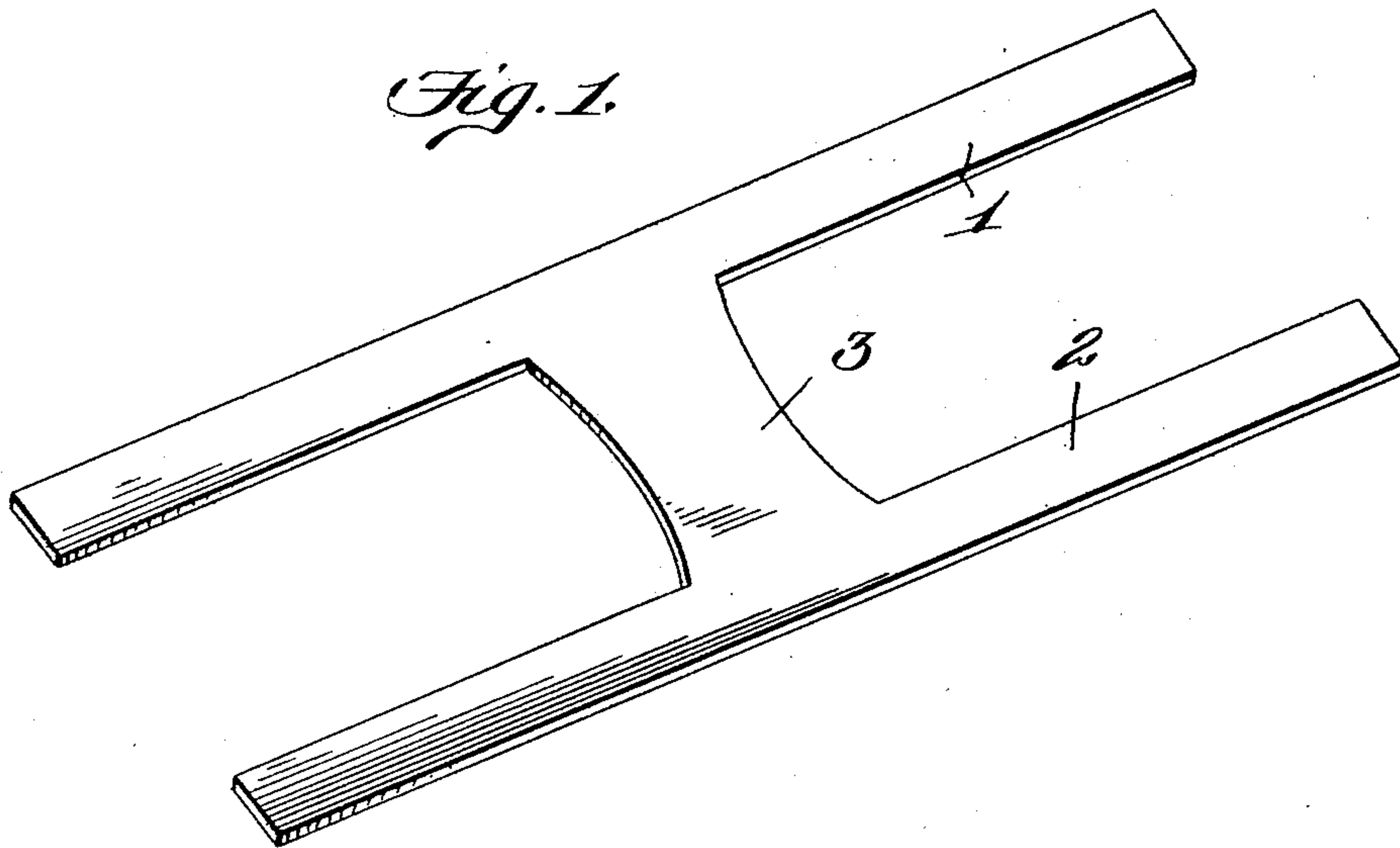
O. M. STIMSON & P. PARKE.

BRAKE SHOE.

APPLICATION FILED OCT. 21, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses:
C. D. Kesler
F. O. Lanier

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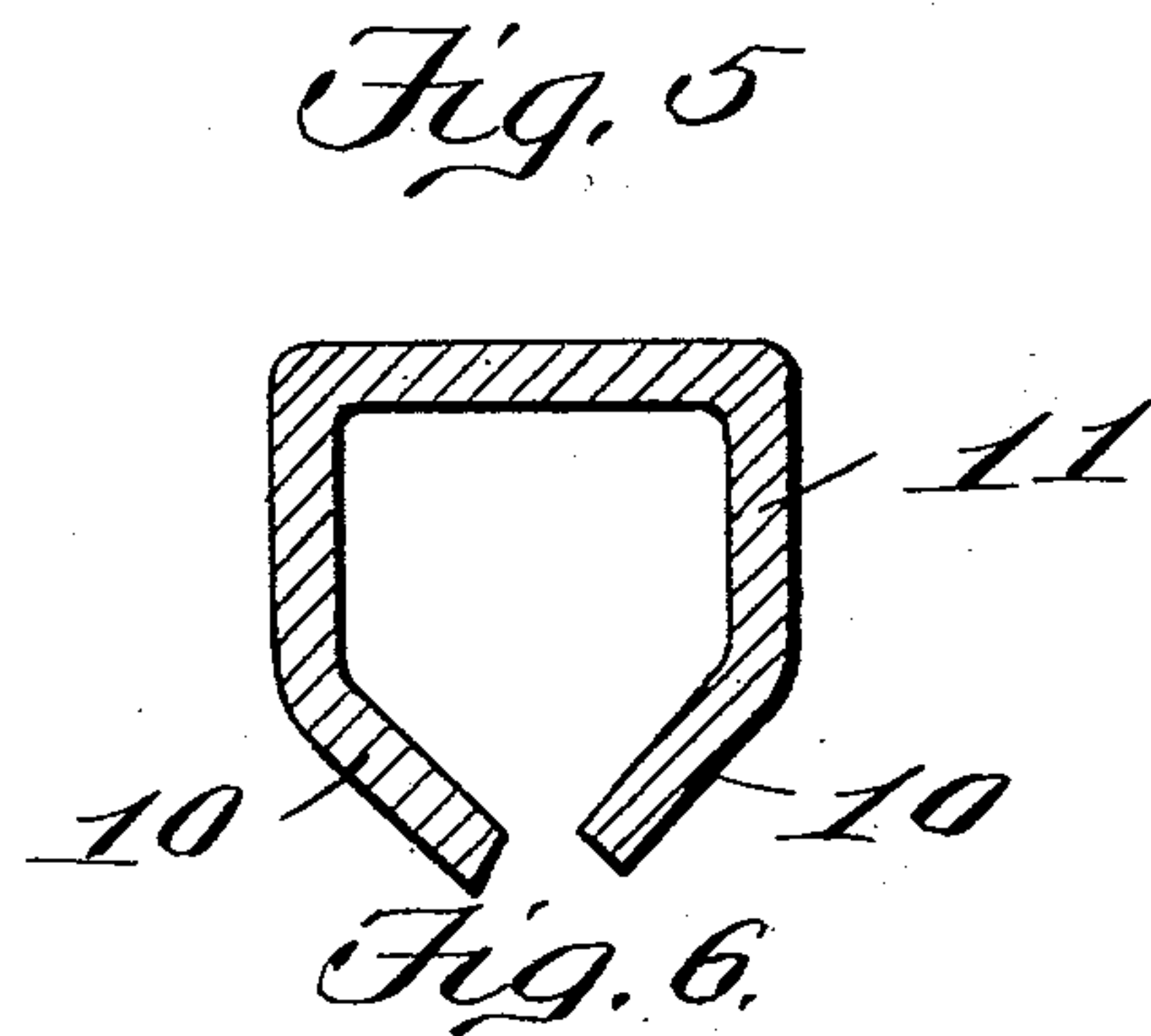
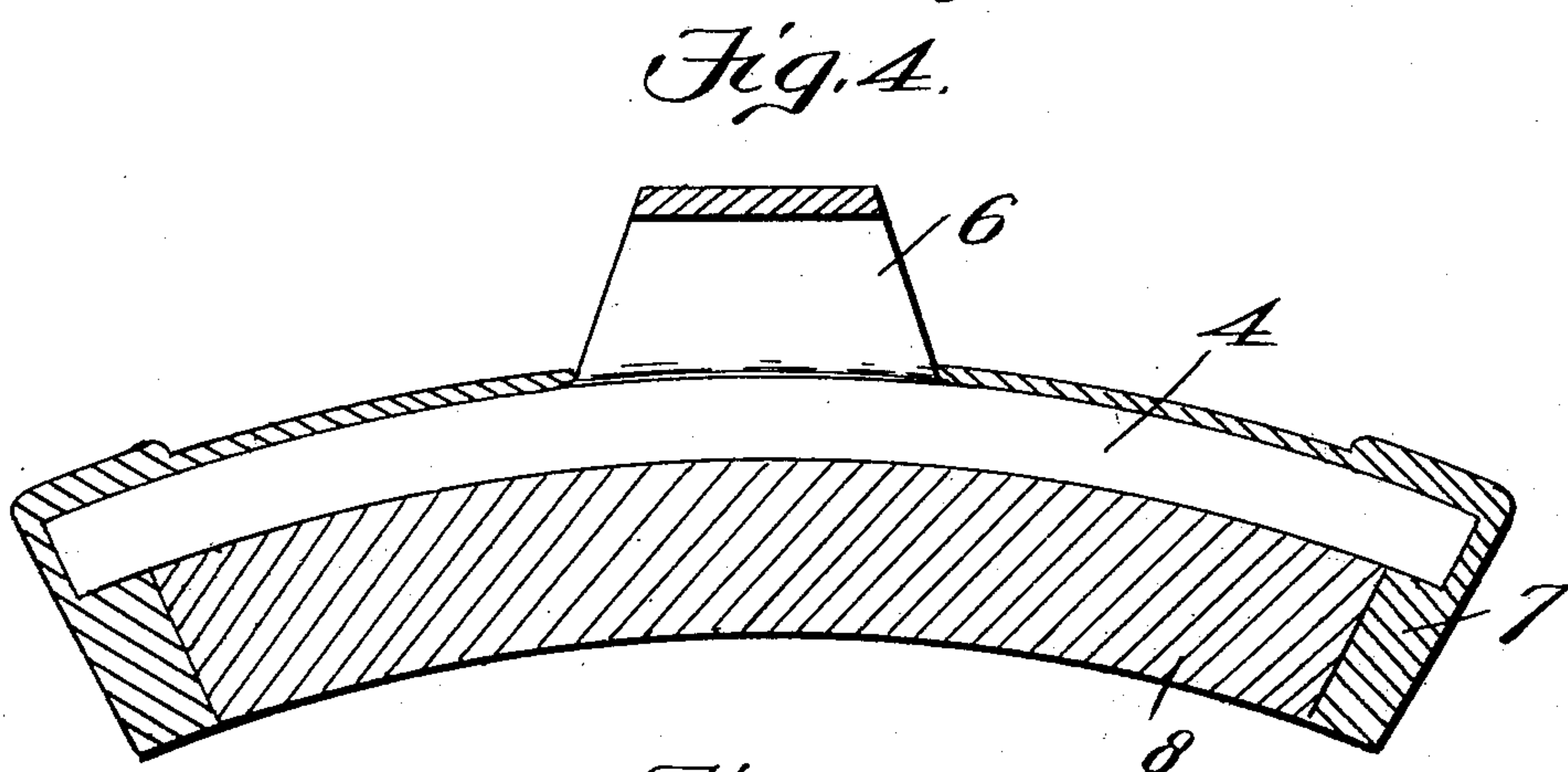
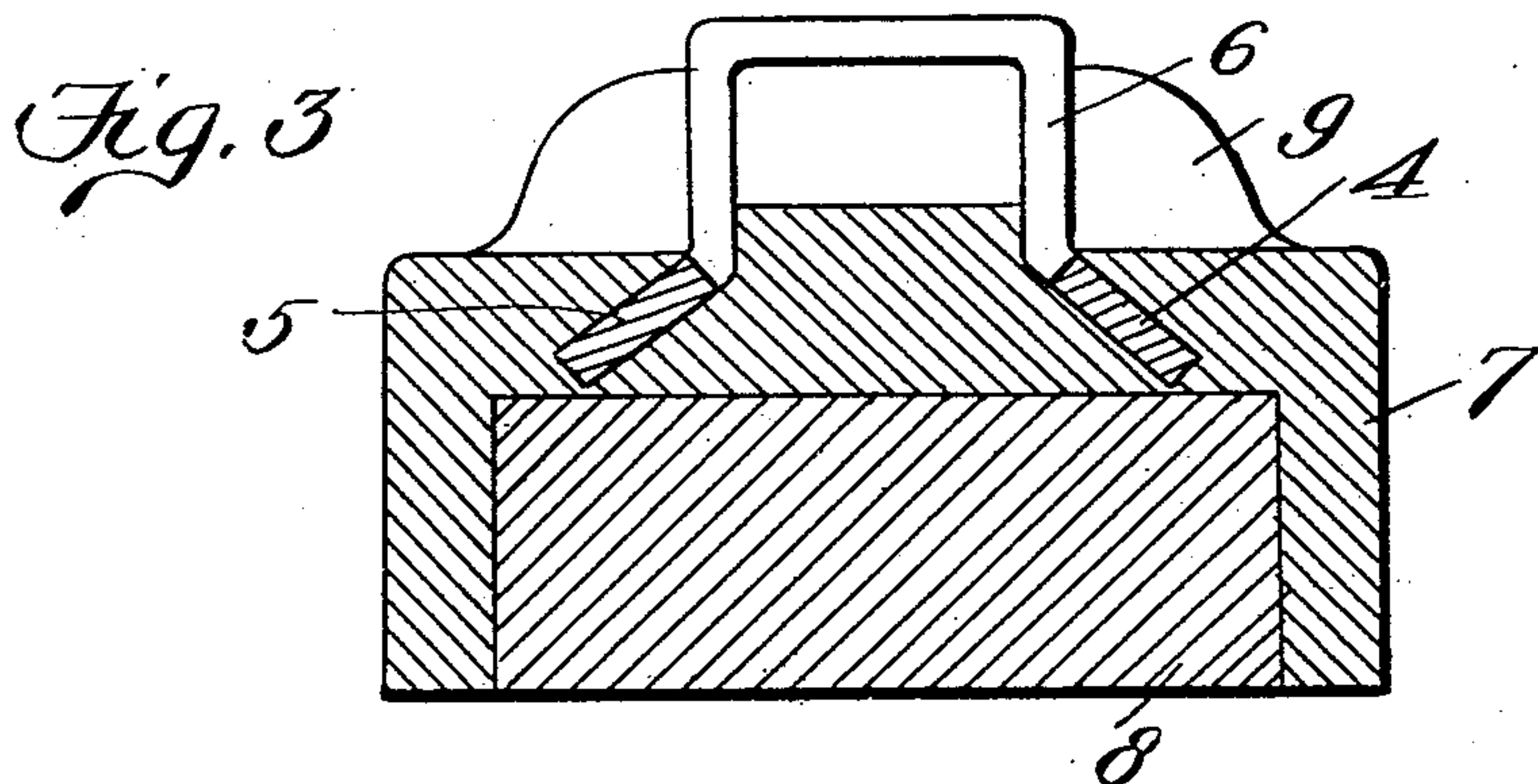
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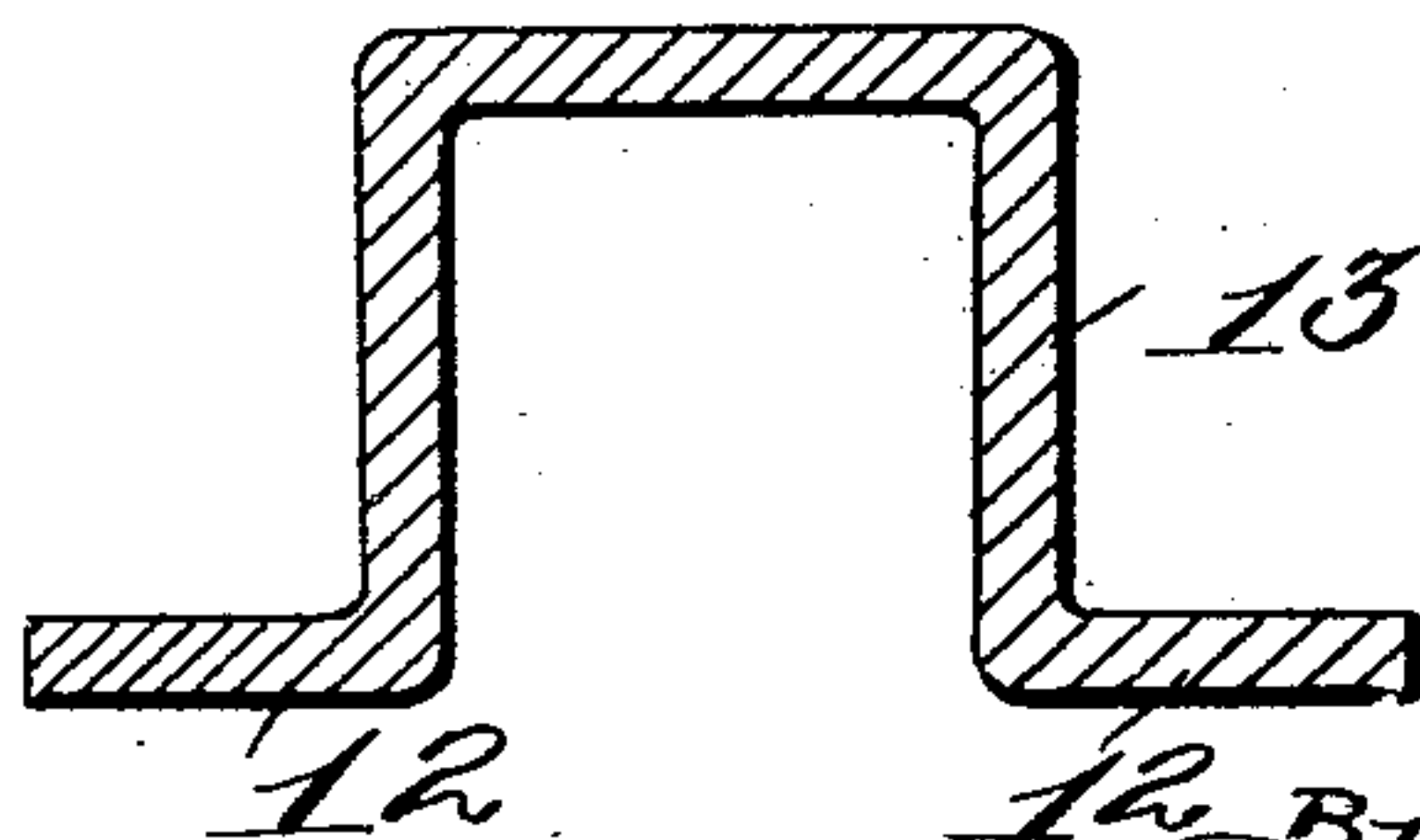
APPLICATION FILED OCT. 21, 1903.

NO MODEL.

2 SHEETS—SHEET 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

OSCAR M. STIMSON AND PETER PARKE, OF CHICAGO, ILLINOIS.

BRAKE-SHOE.

SPECIFICATION forming part of Letters Patent No. 750,728, dated January 26, 1904.

Application filed October 21, 1903. Serial No. 177,880. (No model.)

To all whom it may concern:

Be it known that we, OSCAR M. STIMSON and PETER PARKE, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Brake-Shoes, of which the following is a specification.

This invention relates to certain new and useful improvements in brake-shoes, and aims to devise a new and novel means for strengthening the back of a shoe, combined with a loop or lug for attaching the shoe to the brake-head.

The objects of the invention are, first, to provide new and improved means for attaching the shoe to the brake-head, said means consisting of a loop or lug anchored to the shoe and said loop or lug preferably constructed of ductile metal, and by the employment of such a constructed loop or lug the objection of the ordinary cast-iron loop or lug is overcome, the objection being the frequent breaking off of the same before full service of the shoe is obtained; second, to provide new and novel means for strengthening the back of the shoe to prevent the separation of the parts forming the shoe when under unequal strain; third, to securely anchor the loop or lug in the brake-shoe by anchors extending in the direction of the length of the shoe, said anchors thereby forming strengtheners for the shoe; fourth, to construct the loop or lug and the anchors preferably of ductile metal, so said loop or lug and anchors when in position will hold together the different parts of the shoe, which would become broken, as is frequently the case, under unequal strain, and, fifth, to provide a new and novel form of blank of ductile metal from which the combined loop or lug and strengthening-anchors are set up.

The invention further aims to provide a combined attaching and strengthening means for brake-shoes which shall be extremely simple in its construction, strong, durable, efficient in its use, and comparatively inexpensive to manufacture.

With the foregoing and other objects in view the invention consists of the novel combination and arrangement of parts hereinafter more specifically described, illustrated in the

accompanying drawings, and particularly pointed out in the claims hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like reference characters denote corresponding parts throughout the several views, and in which—

Figure 1 is a perspective view of the blank, preferably formed of ductile metal. Fig. 2 is a like view of the combined attaching and strengthening means. Figs. 3 and 4 illustrate, respectively, a transverse and a longitudinal sectional view of the brake-shoe with our new and improved combined attaching and strengthening means in position. Figs. 5 and 6 are transverse sectional views of the combined attaching and strengthening means, showing a modified arrangement of the anchor and strengthening bars.

In Fig. 1 of the drawings is shown the blank from which the combined attaching and strengthening means is formed. The blank is preferably constructed of ductile metal, and it consists of a pair of parallel bars 1 2, connected at their centers by a cross-piece 3, which forms a blank substantially H-shaped in contour.

In Fig. 2 of the drawings the combined attaching and strengthening means is shown and which consists of a pair of parallel anchoring and strengthening bars 4 5, extending toward each other at an inclination and are formed integral with an inverted-U-shaped loop or lug 6, the latter being arranged centrally of the inner edge of the bars 4 5.

The manner of forming the combined attaching and strengthening means from the H-shaped blank is as follows: Each side of the cross-piece 3 is bent at right angles to form the loop or lug 6, and the bars 4 5 are then bent at an inclination, so that their inner edges will extend toward each other.

In Figs. 3 and 4 of the drawings is shown the application of the combined attaching and strengthening means to a brake-shoe, and in these figures of the drawings the reference character 7 denotes the outer portion of the shoe; 8, the insert; 9, a pair of protuberances;

4 5, the anchor and strengthening bars embedded at an inclination in the back of the shoe and extending parallel to each other and in a longitudinal manner—that is, in the direction of the length of the shoe—and 6 denotes the loop or lug arranged between the protuberances 9. These latter may be omitted, if desired. It will be evident that by embedding the bars 4 5 in the manner shown the back of the shoe is strengthened and the loop or lug 6 securely connected to the shoe, owing to the anchoring of the bars 4 5.

In the modified construction shown in Fig. 5 the anchoring and strengthening bars extend downwardly and inwardly at an inclination, whereas in Figs. 2, 3, and 4 they extend downwardly and outwardly at an inclination.

In the modified form shown in Fig. 6 the combined anchoring and strengthening bars extend at right angles to the loop.

In Fig. 5 the strengthening-bars are indicated by the reference character 10 and the loop or lug by the reference character 11. In Fig. 6 the combined anchoring and strengthening bars are designated by the reference character 12 and the loop by the reference character 13.

From the foregoing construction it is evident that a new and improved means is set forth for securing or attaching the shoe to the brake-head, that an improved method of strengthening the back of the shoe is obtained to prevent the separation of the parts forming the shoe when under unequal strain, and it is also evident that the two advantages just set forth are accomplished at one and the same time by having the longitudinally-extending anchors integral with the attaching loop or lug. It will also be evident from the foregoing description, taken in connection with the accompanying drawings, that a simple and efficient ductile metal loop or lug for securing or attaching the brake-shoe to the brake-head is set forth and that it overcomes the objection to the ordinary cast-iron lug generally employed, said cast-iron lug frequently being broken off before full service of the shoe is obtained. It will also be evident that the loop or lug is securely anchored to the brake-shoe, for the reason that the anchors extend longitudinally of the shoe or in the direction of the length of the shoe, the anchors being embedded in the shoe and also forming strengthening means for the back of the shoe, and owing to the fact that the combined attaching and strengthening means is constructed of ductile metal it will securely hold together the different parts of the shoe, which would become broken, as is frequently the case, under unequal strains.

It is thought the many advantages of our improved combined attaching and securing means for brake-shoes can be readily under-

stood from the foregoing description, taken in connection with the accompanying drawings, and it will furthermore be evident that changes, variations, and modifications can be resorted to without departing from the spirit of our invention or sacrificing any of its advantages, and we therefore do not wish to restrict ourselves to the details of construction hereinbefore described, and set forth in the annexed drawings, but reserve the right to make such changes, variations, and modifications as come properly within the scope of the protection prayed.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A pair of parallel anchor and strengthening bars suitably connected together.
2. A pair of parallel anchor and strengthening bars connected together at their center.
3. A pair of parallel anchor and strengthening bars having integrally-connecting means.
4. A pair of longitudinally-extending parallel anchor and strengthening bars suitably connected together.
5. A pair of longitudinally-extending parallel anchor and strengthening bars connected together at their center.
6. A pair of longitudinally-extending parallel anchor and strengthening bars integrally connected with one another.
7. A pair of parallel anchor and strengthening bars extending at an inclination with respect to each other and suitably connected together.
8. A pair of parallel anchor and strengthening bars extending at an inclination with respect to one another and suitably connected together at their center.
9. A pair of parallel anchor and strengthening bars extending at an inclination with respect to one another and integrally connected together.
10. A pair of parallel anchor and strengthening bars extending longitudinally and at an inclination with respect to each other and suitably connected together.
11. A pair of parallel anchor and strengthening bars extending longitudinally and at an inclination with respect to one another and connected together at their center.
12. A pair of parallel anchor and strengthening bars extending longitudinally and at an inclination with respect to each other and integrally connected together.
13. A pair of parallel anchor and strengthening bars, and a loop for connecting said bars together.
14. A pair of longitudinally-extending parallel anchor and strengthening bars, and a loop for connecting said bars together.
15. A pair of parallel anchor and strengthening bars, and an inverted-U-shaped loop for connecting said bars together.

16. A pair of longitudinally-extending parallel anchor and strengthening bars, and an inverted-U-shaped loop for connecting said bars together.

5 17. The combination in a brake-shoe, a pair of longitudinally-extending parallel strengthening-bars embedded in the back thereof for preventing the shoe from breaking under unequal strain.

10 18. The combination in a brake-shoe, a pair of longitudinally-extending parallel strengthening-bars embedded in the back thereof for preventing the shoe from breaking under unequal strain, said bars extending toward each
15 other at an inclination.

19. The combination in a brake-shoe, a pair of longitudinally-extending parallel strengthening-bars embedded in the back thereof, and a loop having its lower portion embedded in
20 the back of the shoe and connected to said bars.

20. The combination with a brake-shoe, of a loop embedded partly therein, and a pair of

longitudinal parallel anchors embedded in the shoe and formed integral with said loop.

21. The combination with a brake-shoe, of a 25 loop embedded partly therein, and a pair of longitudinal parallel anchors embedded in the shoe and formed integral with said loop, said anchors extending at an inclination.

22. The combination with a brake-shoe, of a 30 loop embedded partly therein, and a pair of longitudinal parallel anchors embedded in the shoe and formed integral with said loop, said anchors extending at an inclination away from
35 each other.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

OSCAR M. STIMSON.
PETER PARKE.

Witnesses:

W. C. COOK,
W. J. GALVIN.