

No. 843,523.

PATENTED FEB. 5, 1907.

E. DETTELBACH.  
BRAKE SHOE.  
APPLICATION FILED MAR. 12, 1906.

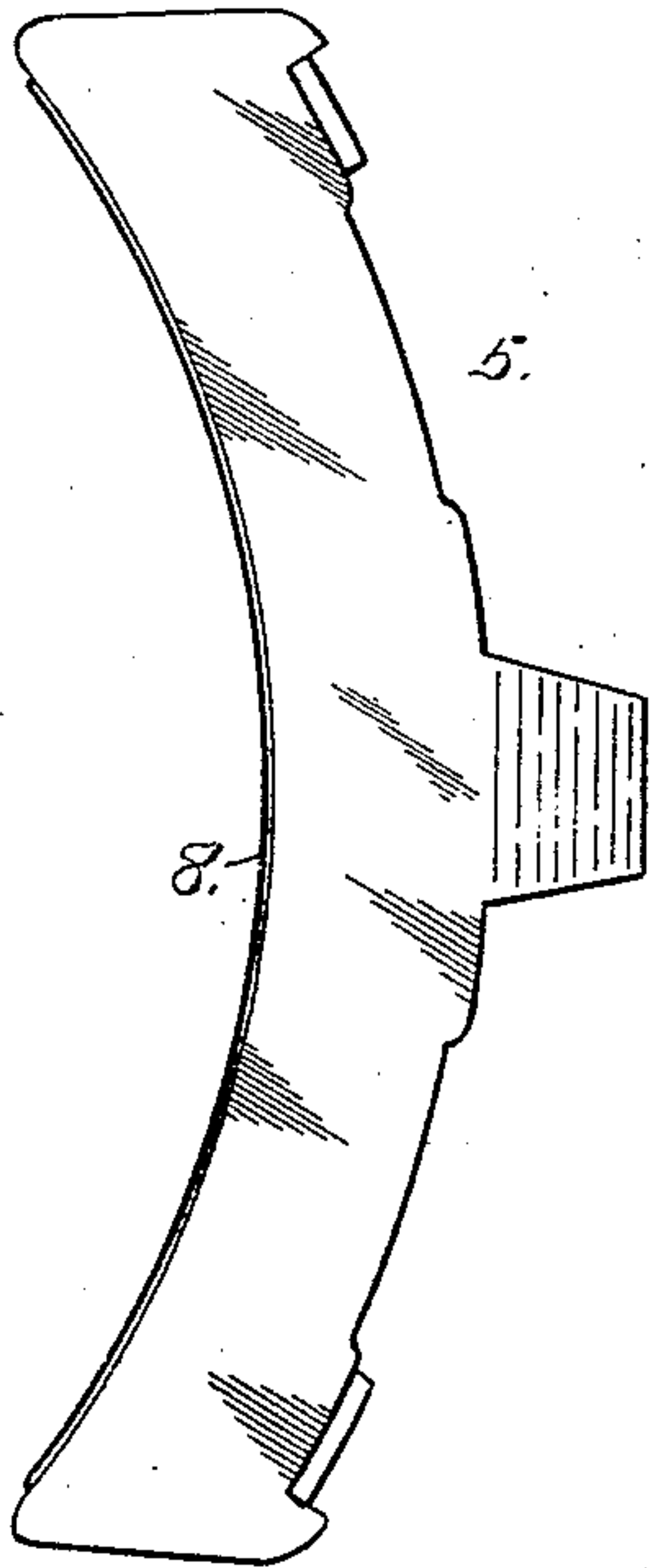


Fig. 1

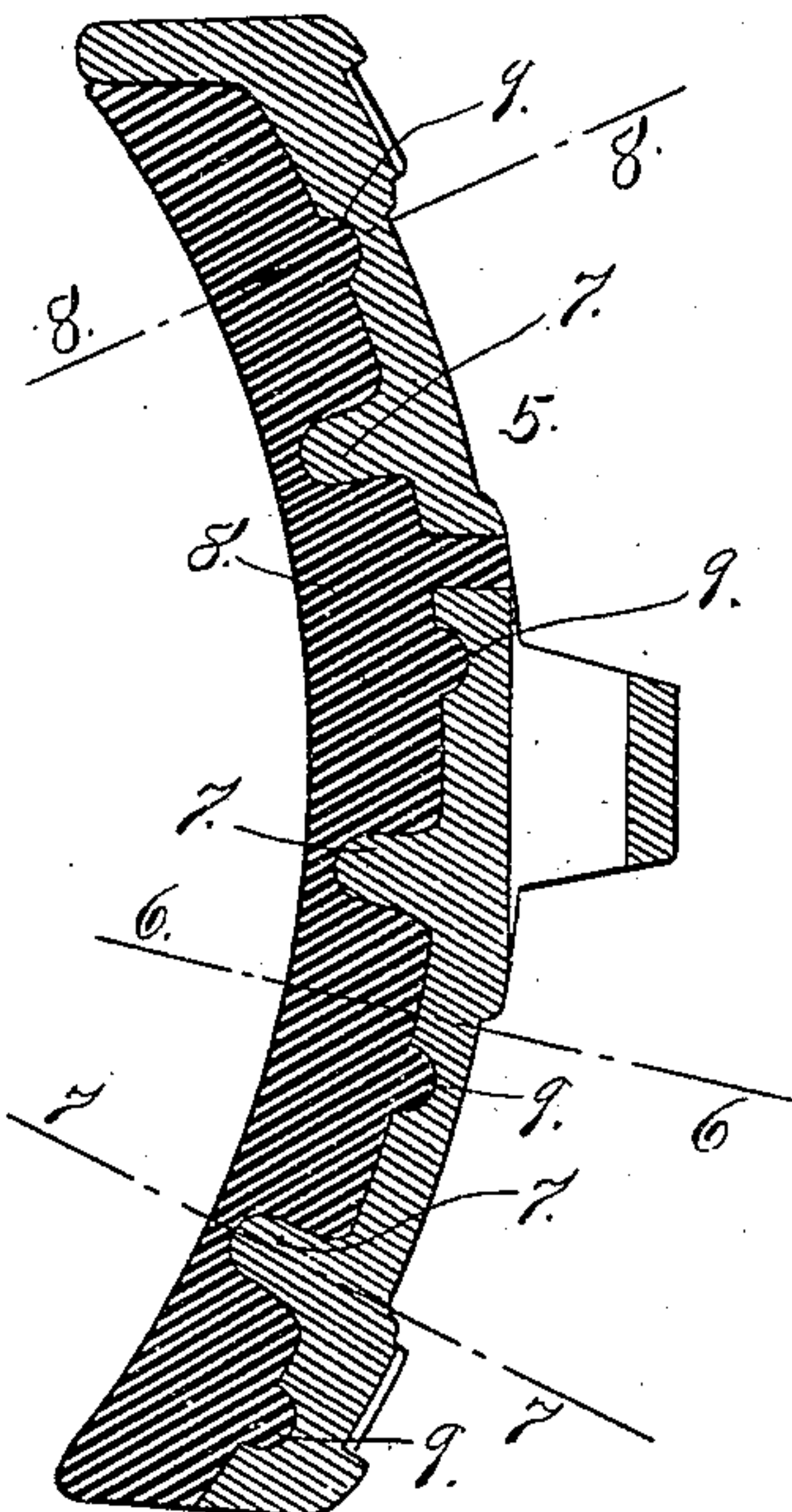


Fig. 2

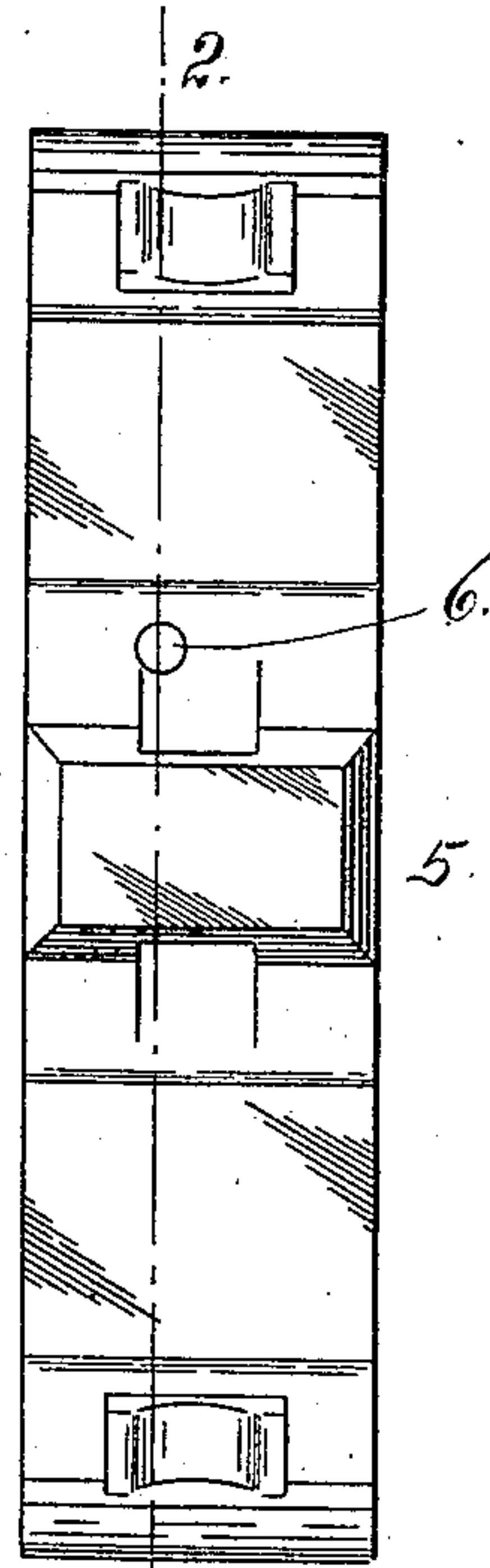


Fig. 3

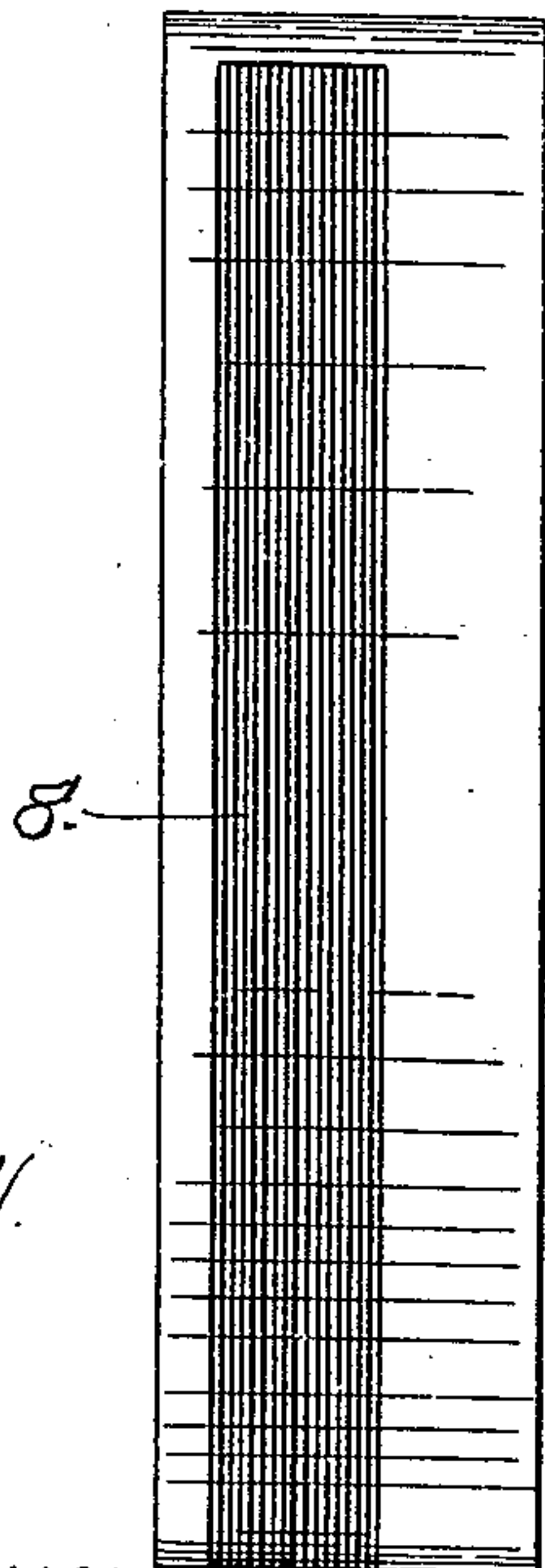


Fig. 4

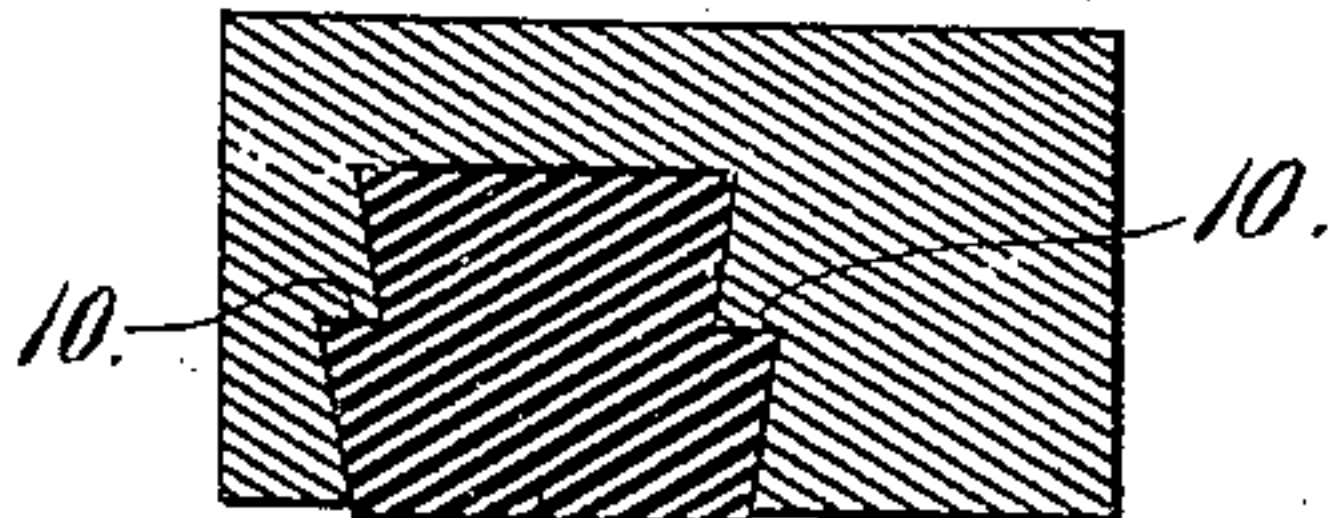


Fig. 6

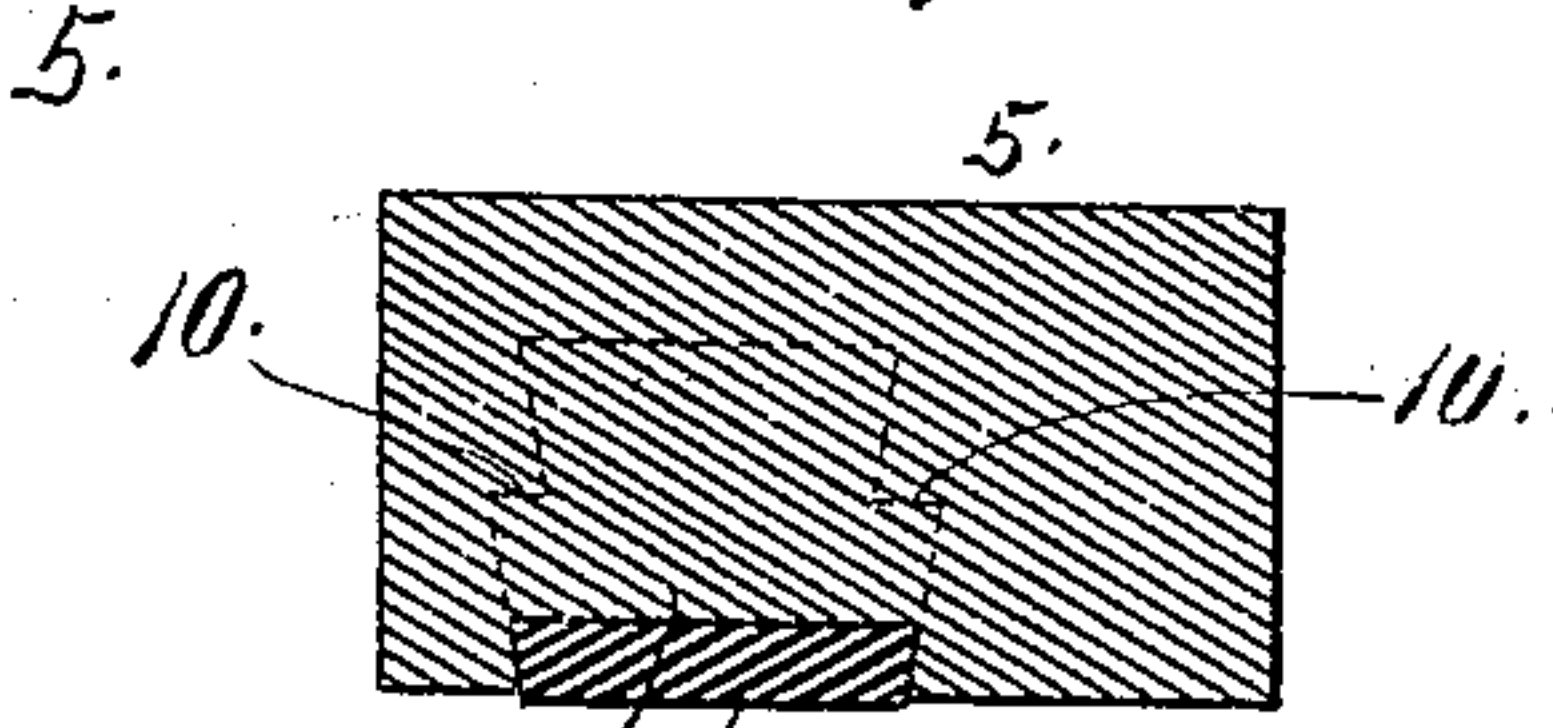


Fig. 7

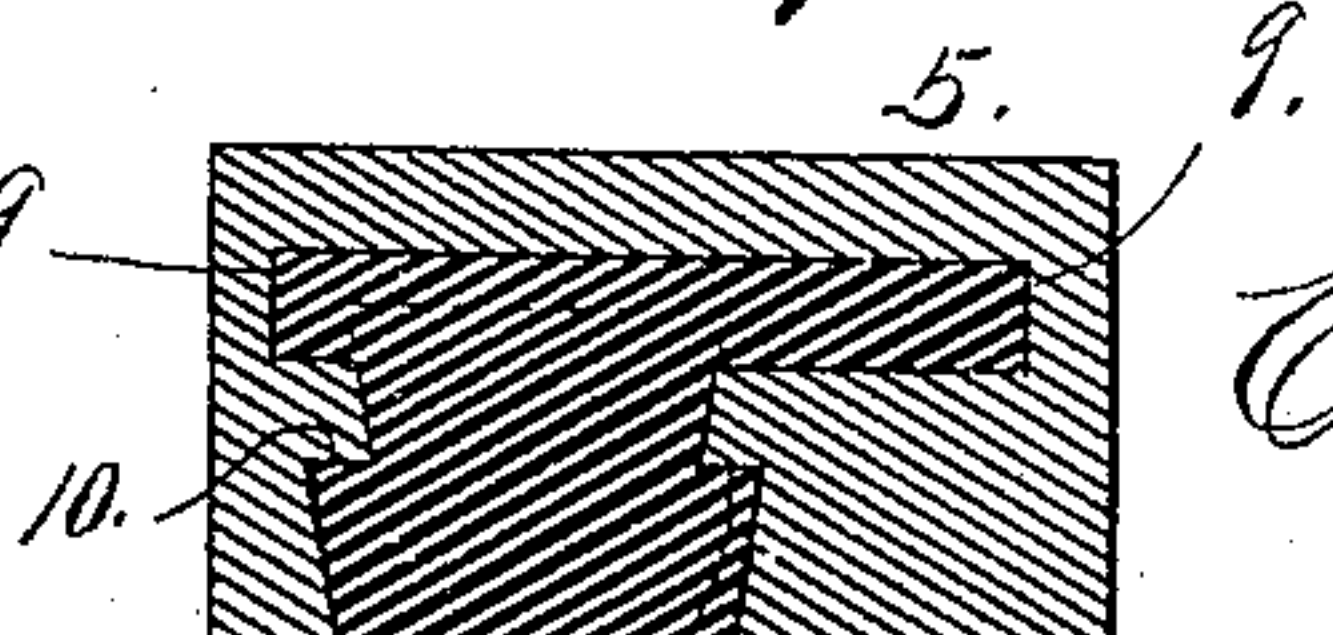


Fig. 8

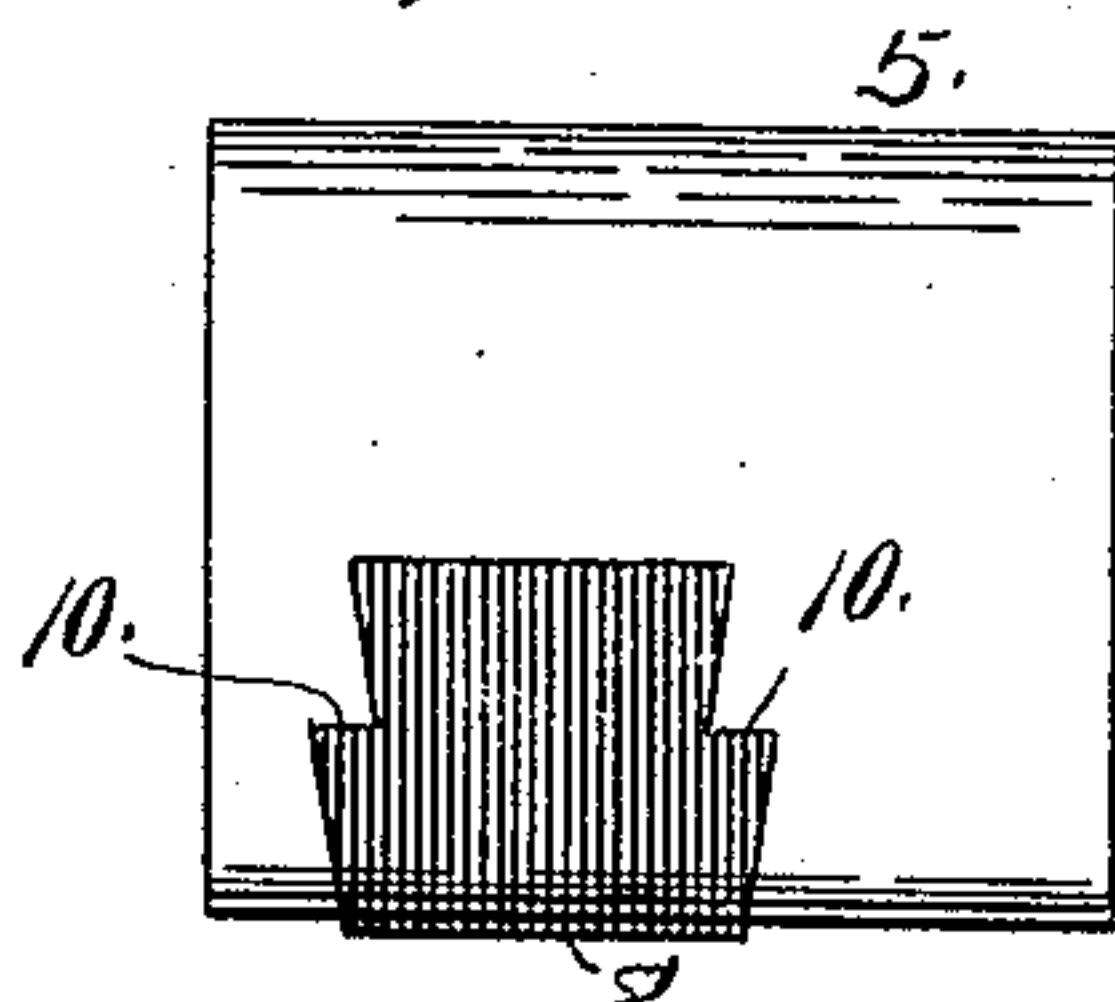


Fig. 5

Witnesses  
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# UNITED STATES PATENT OFFICE.

EDWARD DETTELBACH, OF DENVER, COLORADO.

## BRAKE-SHOE.

No. 843,523.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed March 12, 1906. Serial No. 305,522.

*To all whom it may concern:*

Be it known that I, EDWARD DETTELBACH, a citizen of the United States, residing at the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Brake-Shoes; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in brake-shoes, more especially intended for use on cars, but which may be employed on all classes of vehicles where devices of this character are needed.

My object is to provide a shoe of increased efficiency when compared with those heretofore in use. I accomplish this purpose by the use of a composition of matter which is applied to the body of the shoe and forms a part of its concave or working face. The body of the shoe is formed hollow or grooved, and its contour is such that after the composition is applied and has become hard the composition part of the shoe will be held securely in place. This composition may be of any desired character, the object being, as before stated, to increase the efficiency of the shoe. This result is obtained by reason of the fact that the composition applied to the body of the shoe produces greater friction than the metal of which the ordinary brake-shoe is composed. The composition when first applied to the shoe preferably projects slightly beyond the adjacent face of the body of the shoe.

Having briefly outlined my improved construction as well as the function it is intended to perform, I will proceed to describe the same in detail, reference being made to the accompanying drawing, in which is illustrated an embodiment thereof.

In this drawing, Figure 1 is a side elevation of a brake-shoe equipped with my improvements. Fig. 2 is a longitudinal section taken on the line 2 2, Fig. 3. Fig. 3 is a rear view of the shoe. Fig. 4 is a front view thereof. Fig. 5 is an end elevation of the shoe looking in the direction of arrow 5 in Fig. 2. Figs. 6, 7, and 8 are sections

taken on the lines 6 6, 7 7, and 8 8, respectively, Fig. 2.

The same reference characters indicate the same parts in all the views.

Let the numeral 5 designate the body of the shoe, which is formed hollow or grooved, the said groove being open on the concave face of the shoe and adapted to receive the composition to be applied thereto. This composition is poured into the hollow portion of the shoe in liquid form through an opening 6 on the rear or convex side of the shoe. During this operation the concave face of the shoe is placed against a surface of counterpart shape, whereby the composition is prevented from running out of the shoe. After this composition is applied and become dry or hardened the shoe is in position for use.

Briefly stated, the body 5 is simply grooved on its concave face, the groove being preferably of dovetail shape in cross-section, as shown in Figs. 5 to 8, inclusive. In order, however, to hold the composition more securely in place, the concave portion of the shoe is provided at intervals with projections 7, which separate the hollow portion of the shoe into compartments which receive the composition, which I will designate by the numeral 8. This hollow portion of the shoe is also provided with laterally-extending recesses, as indicated at 9. (See Fig. 8.) As the composition is poured into the hollow portion of the shoe it fills these recesses 9, and thus prevents the tendency of the composition to escape from the shoe. This, taken in connection with the dovetailed shape of the groove with which the recesses 9 communicate, makes the separation of the composition from the shoe practically impossible. The recesses 9 not only extend laterally from the body of the groove or hollow, but they also extend somewhat below the same, as indicated in the longitudinal section of the shoe. (See Fig. 2.) The hollow portion of the shoe may be open at its lower extremity, as disclosed in Figs. 2 and 5. This is not, however, a vital feature, as the shoe may, if desired, be closed at both extremities.

As shown in the drawings, (see Figs. 5 to 8, inclusive,) the side walls of the groove formed in the concave face of the shoe are provided with offsets 10. It must be understood, however, that the invention is not limited to the details of construction described, since I



am aware that many modifications may be employed without departing from the spirit of the invention.

Having thus described my invention, what  
5 I claim is—

1. A brake-shoe having a grooved face, each side wall of the groove being composed of two members inclined outwardly as they extend inwardly, the two wall members on  
10 each side of the groove being separated by a longitudinal offset which forms the inward limit of the outer wall member and the outward limit of the inner wall member.

2. A brake-shoe having a grooved face and

projections dividing the groove into compartments, the grooved part of the shoe also having laterally-extending recesses, the side walls of the groove being provided with offsets, the hollow and recessed portion of the shoe being filled with a suitable composition to in- 20  
crease the braking efficiency.

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

EDWARD DETTELBACH.

Witnesses:

A. J. O'BRIEN,  
DENA NELSON.