

S. BURNHAM.  
HEEL FOR BOOTS AND SHOES.  
APPLICATION FILED JULY 28, 1910.

983,679.

Patented Feb. 7, 1911.

Fig. 1.

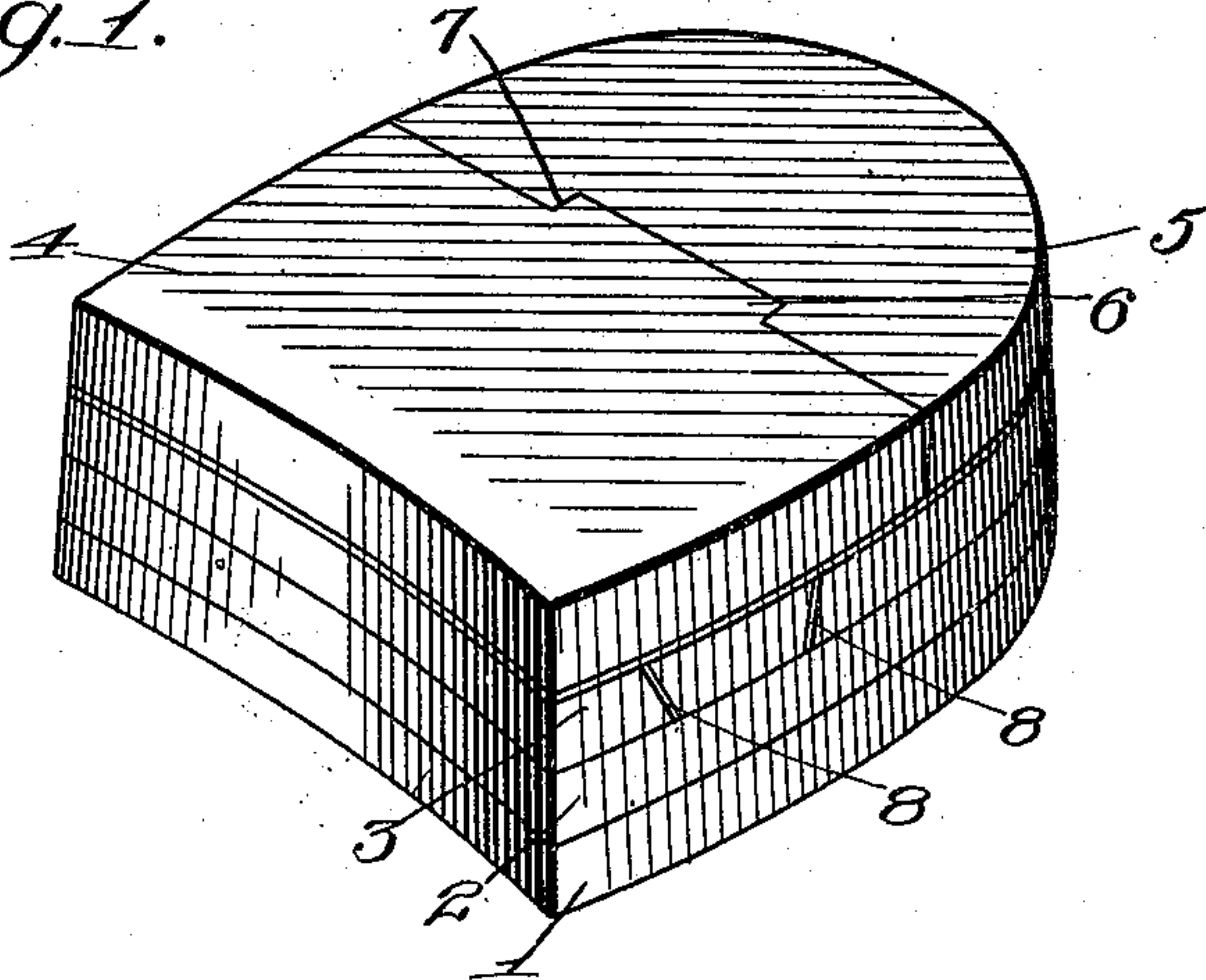


Fig. 2.

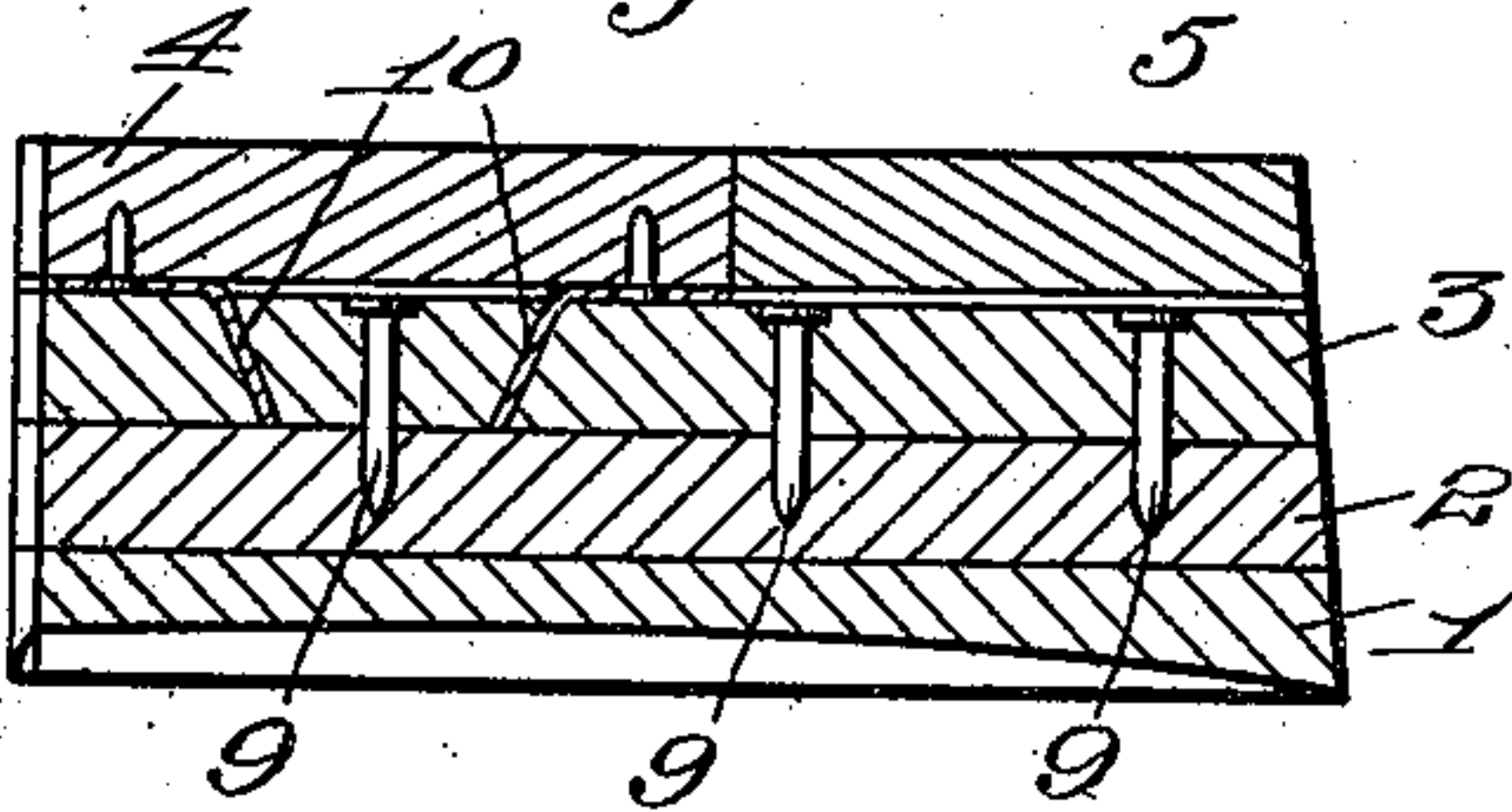


Fig. 3.

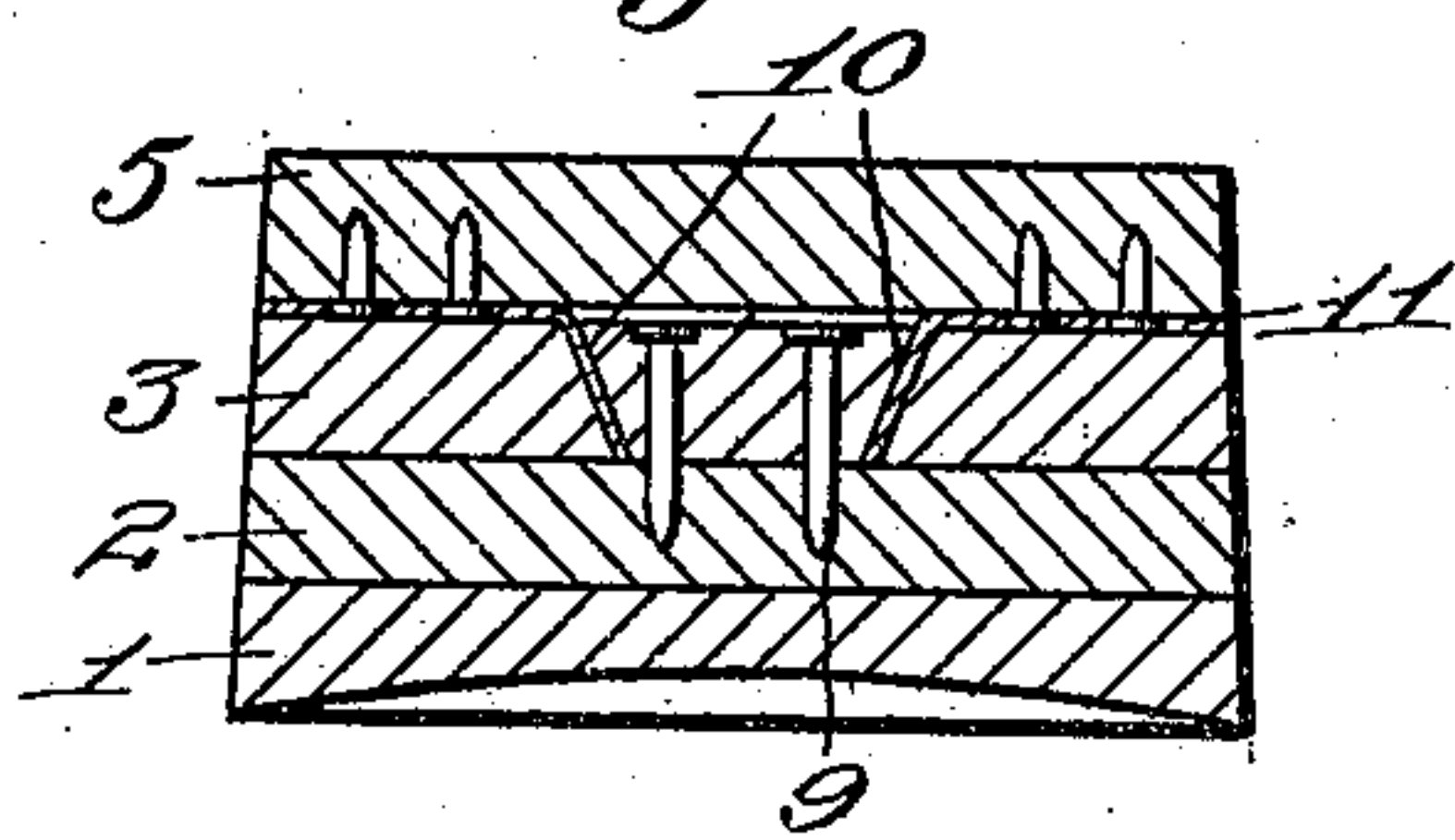


Fig. 4.

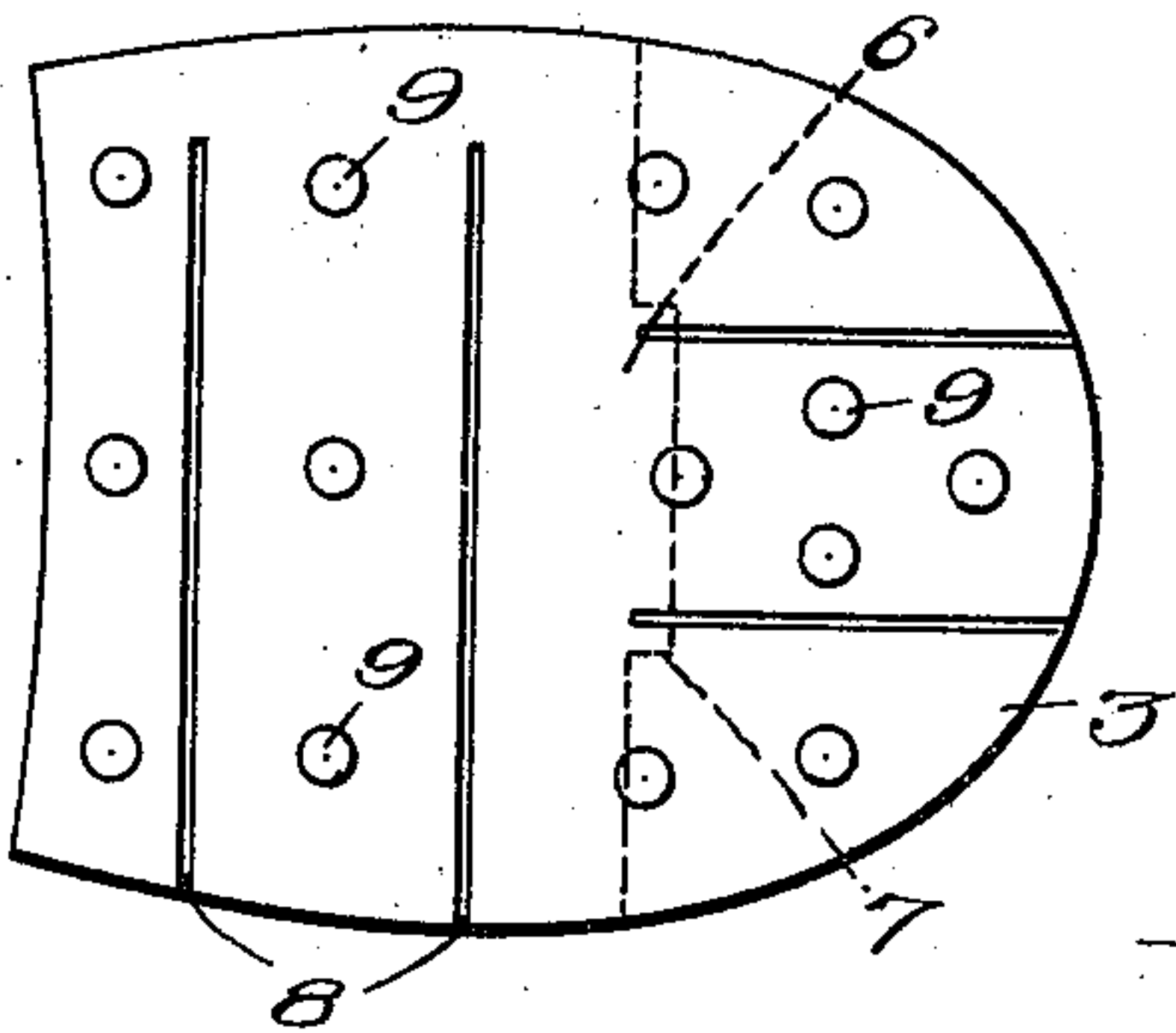


Fig. 6.

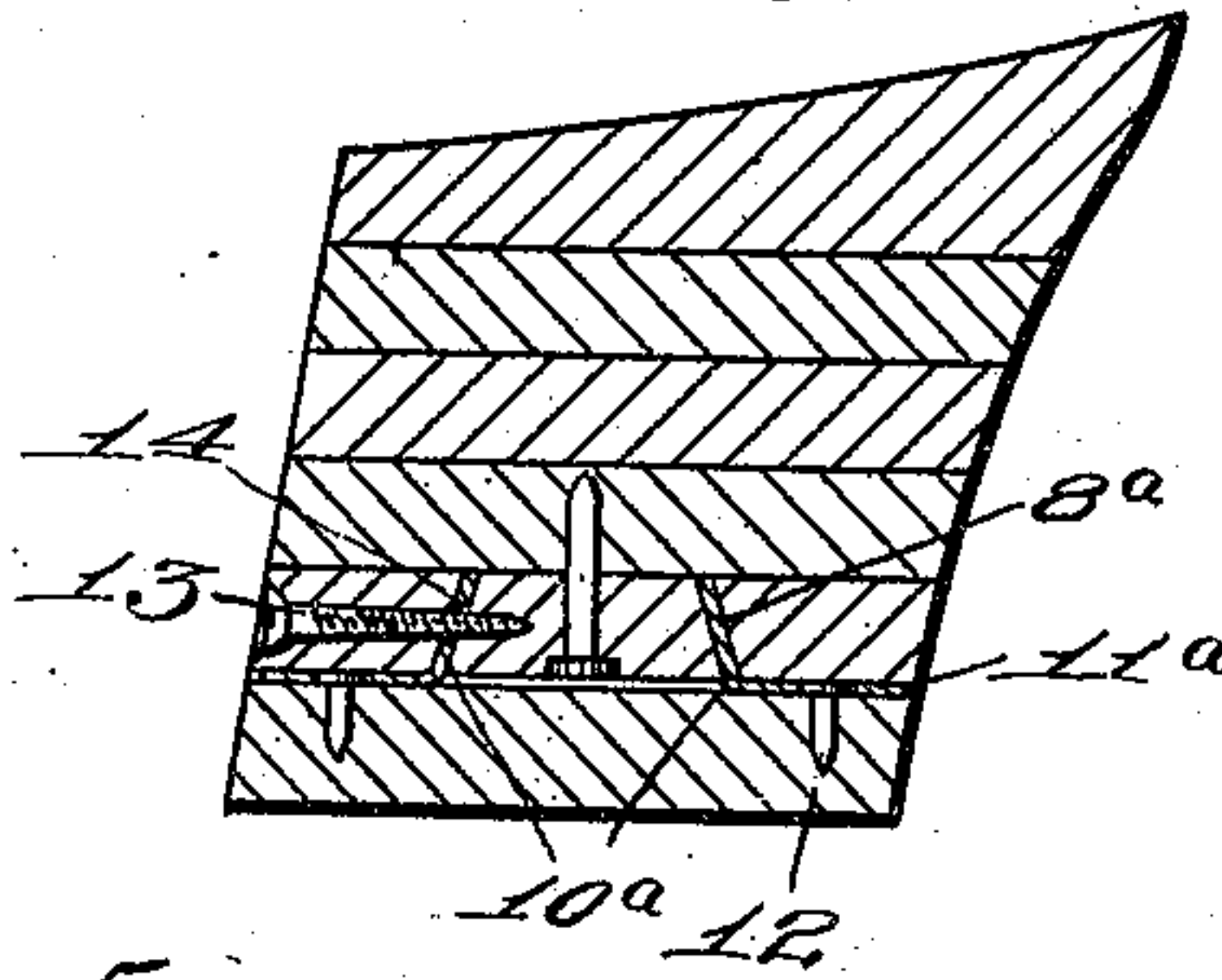
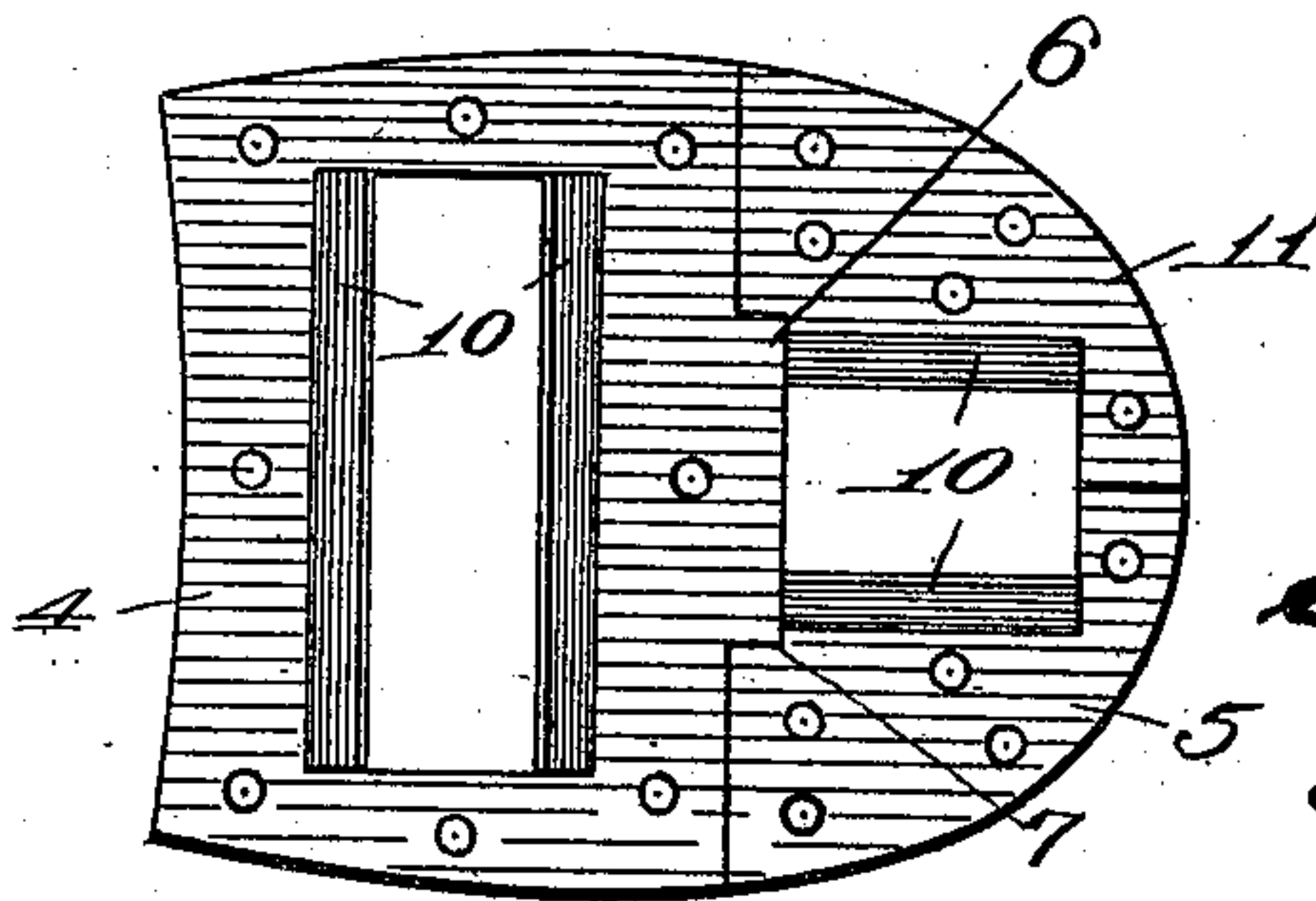


Fig. 5.



Witnesses  
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# UNITED STATES PATENT OFFICE.

SAMUEL BURNHAM, OF ROCHESTER, NEW YORK.

HEEL FOR BOOTS AND SHOES.

983,679.

Specification of Letters Patent.

Patented Feb. 7, 1911.

Application filed July 28, 1910. Serial No. 574,271.

*To all whom it may concern:*

Be it known that I, SAMUEL BURNHAM, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Heels for Boots and Shoes, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

The present invention relates to heels for boots or shoes and more particularly to the type having a removable tread, an object being to provide a simple and inexpensive means for effectively securing the tread of the heel in such a manner that it may be quickly removed for the purpose of fitting another tread.

To these and other ends the invention consists in certain parts and combination of parts all of which will be hereinafter described, the novel features being pointed out in the appended claims.

In the drawings: Figure 1 is a perspective view of a heel constructed in accordance with this invention; Fig. 2 is a vertical longitudinal section of the heel; Fig. 3 is a vertical transverse section; Fig. 4 is a bottom view of the heel with the tread removed; Fig. 5 is a top view of the tread removed; and Fig. 6 is a vertical section of another embodiment of the invention.

The heel is preferably formed of a number of superimposed layers (1, 2 and 3 in this instance) and a tread removably secured to the lower layer. The layers 1, 2 and 3 may be formed of any suitable material but preferably of leather while the tread may be formed of leather, rubber or other material. In this instance, the tread is of uniform thickness and is formed of two sections, a forward section 4 extending from one side of the heel to the other and a rear section 5. Both sections preferably are slidably removable, the forward section having a movement transverse of the heel and the rear section having a movement longitudinally of the heel, a rearward movement effecting its removal. This relative arrangement of the front and the rear section is an important feature of this invention, for it is well known that under normal conditions a person will hit the extreme rear of the tread of the heel first, thus tending to maintain the rear section 5 against the forward or front section 4, while the latter acts as a guard to receive impact or blows which would drive the rear section rearwardly.

Under ordinary wear the forward section will not shift but in order positively to insure it against movement, an interlocking connection with the rear section 5 may be provided. In this instance, a lateral projection 6 is provided on the rear edge of the forward section and is received within a recess 7 on the forward edge of the rear section. This interlocking connection will permit the rearward movement of the rear section but will prevent sidewise movement of the forward section.

The sliding connection between the tread section and the other portion of the heel may be of any form. Preferably it is formed by providing for each section a pair of relatively inclined or converging slits 8 in the layer 3, said slits extending from one edge of the layer and spaced from the other edge, preferably extending through the entire thickness of the layer to facilitate the accurate cutting thereof. The nails 9 for holding the layer 3 in place are driven into the layer between the slits and thus securely prevent that portion from slipping.

Each tread section carries a pair of converging flanges 10 preferably formed of thin sheet material and having attaching portions 11 of sheet material formed in one or two pieces, as shown in Fig. 5. It is preferable that the attaching portions 10 shall completely cover the edge portions of the upper surface of the tread so that a space will not be formed between the tread portion and its proximate layer 3.

Instead of forming the tread of two or more sections it may be formed of a single piece of material 12 of uniform thickness as shown in Fig. 6 with a single plate 11<sup>a</sup> secured to the upper surface thereof and provided with a pair of converging flanges 10<sup>a</sup>, fitting in slits 8<sup>a</sup> in the lower superimposed layer, the heel in this instance being formed of five layers. The slits and the flanges lie transversely of the length of the heel, so that the usual walking or blows on the front edge will not shift the tread and, if desirable, a screw or other fastener 13 may be introduced through the front wall of the heel to engage the forward flange 10<sup>a</sup>, the latter being preferably perforated at 14 to provide a better locking action.

A shoe heel constructed in accordance with this invention enables a shoe or boot manufacturer to furnish both leather and rubber treads with each pair of shoes or boots and



the wearer may quickly replace a tread with a new one with little effort. The securing means is simple in operation and durable in use and the cost of manufacture thereof has been reduced to a minimum. There are no delicate parts to get out of order and the life of the heel will be equal to the life of the shoe or boot. Further the weight of the shoe or boot is not materially increased as thin sheet metal plates are employed.

In the embodiment shown in Figs. 1 to 5 it is possible to make the rear portion of rubber to take up the jar in walking while the front may be made of other material. The transverse attaching movement of the front section of Figs. 1 to 5 or the whole tread in Fig. 6 has the advantage that it is not liable to be shifted in the ordinary use of the shoe or boot, and the longitudinal attaching movement of the rear section of Figs. 1 to 5 is such that with ordinary walking the tendency will be to move it toward the front section to lock the latter against movement, the front section acting to prevent the rear section being engaged and shifted rearwardly.

What I claim as my invention and desire to secure by Letters Patent is:

1. A shoe or boot heel comprising an intermediate layer having slits extending in parallel directions from one edge thereof, and a tread provided with flanges on its upper face, fitting in the slits and formed to slide therein in the direction of the lengths of the slits to permit the tread to be detached from the intermediate layer.

2. A shoe or boot heel comprising an intermediate layer having relatively inclined slits extending in parallel directions from one edge of the layer, and a tread having relatively inclined flanges on its upper surface, fitting in the slits of the intermediate layer and formed to slide in the slits in the direction of the lengths of said slits to permit the tread to be detached from the intermediate layer.

3. A shoe or boot heel comprising an intermediate layer having relatively inclined slits extending completely through the same, nails securing said layer between said slits to a superposed layer, and a tread having relatively inclined flanges on its upper face fitting in the slits.

4. A shoe or boot heel comprising a removable tread of uniform thickness, a leather layer of uniform thickness provided with relatively inclined slits extending through the layer and leading in parallel directions from one edge of said layer, and relatively inclined sheet metal flanges secured to the upper surface of the tread, fitting in the slits of the leather layer, and

formed to slide in the slits in the direction of the length of said slits to permit the tread to be detached from the leather layer.

5. A shoe or boot heel comprising two tread sections each having a sliding detachable engagement with a superposed portion of the heel, and one interlocking with the other to prevent the movement of the latter.

6. A shoe or boot heel comprising two detachable tread sections, one of which has a sliding movement transversely of the length of the shoe heel on the superposed heel portion and the other of which has a sliding movement in the direction of the length of the shoe on the superposed heel portion and interlocks with the first named section to prevent the movement of the latter.

7. A shoe or boot heel comprising a detachable forward tread section extending from one side of the heel to the other and removable by a sliding movement transversely of the length of the heel on the superposed heel portion, and a detachable rear tread section removable by a rearward sliding movement on the superposed heel portion.

8. A shoe or boot heel comprising a detachable forward tread section extending from one side of the heel to the other and having a transverse sliding movement on the superposed heel portion, and a detachable rear tread-section interlocking with the first named section to prevent the sliding movement of the latter on the superposed heel portion, said rear tread section having a rearward sliding movement on the superposed heel portion.

9. A shoe or boot heel comprising a detachable tread formed of two sections each slidably engaging a superposed portion of the heel, one of said sections having a sliding movement transversely of the other, and one having a projection on one side entering a recess provided on the other.

10. A shoe or boot heel comprising a detachable tread formed of a forward section extending from one side of the heel to the other and removable from the superposed portion of the heel by a sliding movement transverse of said heel, and a rear section removable from the superposed portion of the heel by a rearward sliding movement, one of the tread sections being provided with a recess and the other having a projection to enter said recess, so that the rear heel section locks the forward section against movement.

In witness thereof, I have hereunto set my hand this 23rd day of July, 1910, in the presence of two subscribing witnesses.

SAMUEL BURNHAM.

Witnesses:

F. B. HUTCHINSON,  
A. M. WHITMORE.