

No. 734,111.

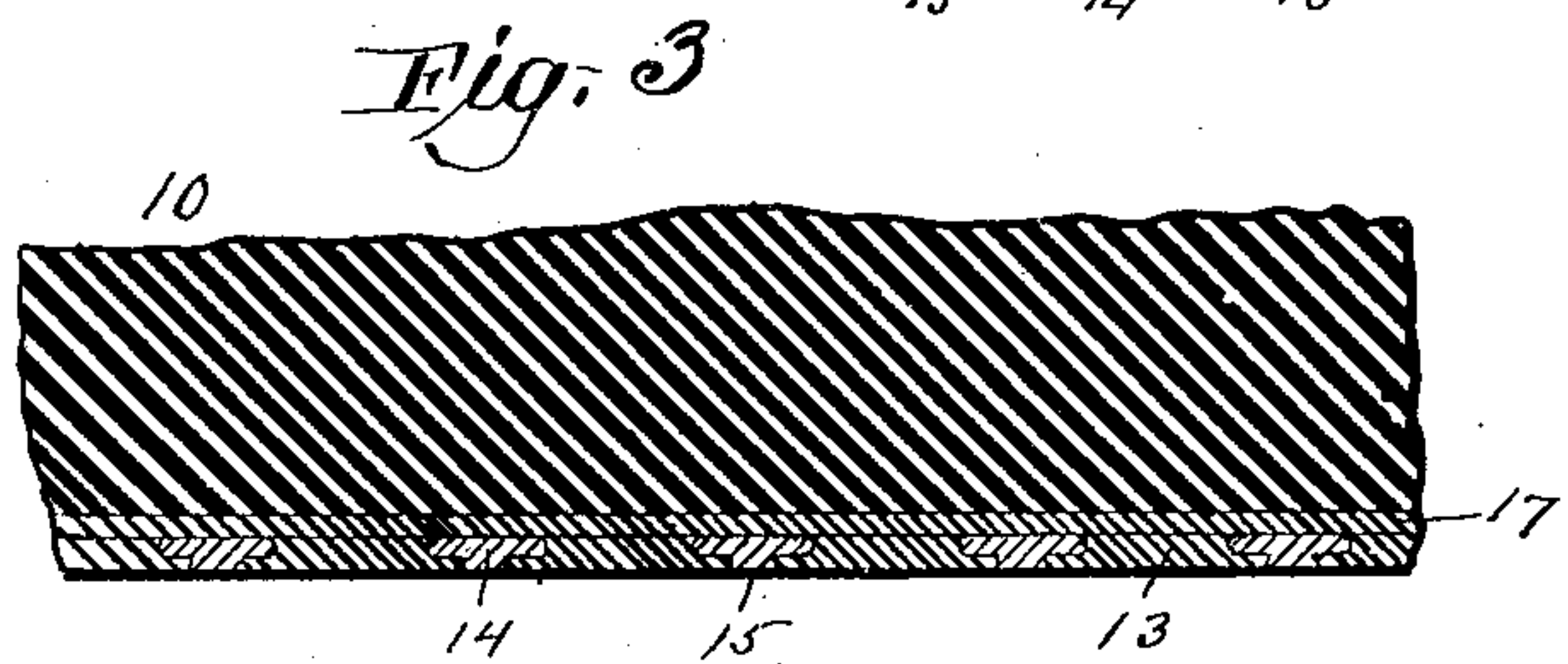
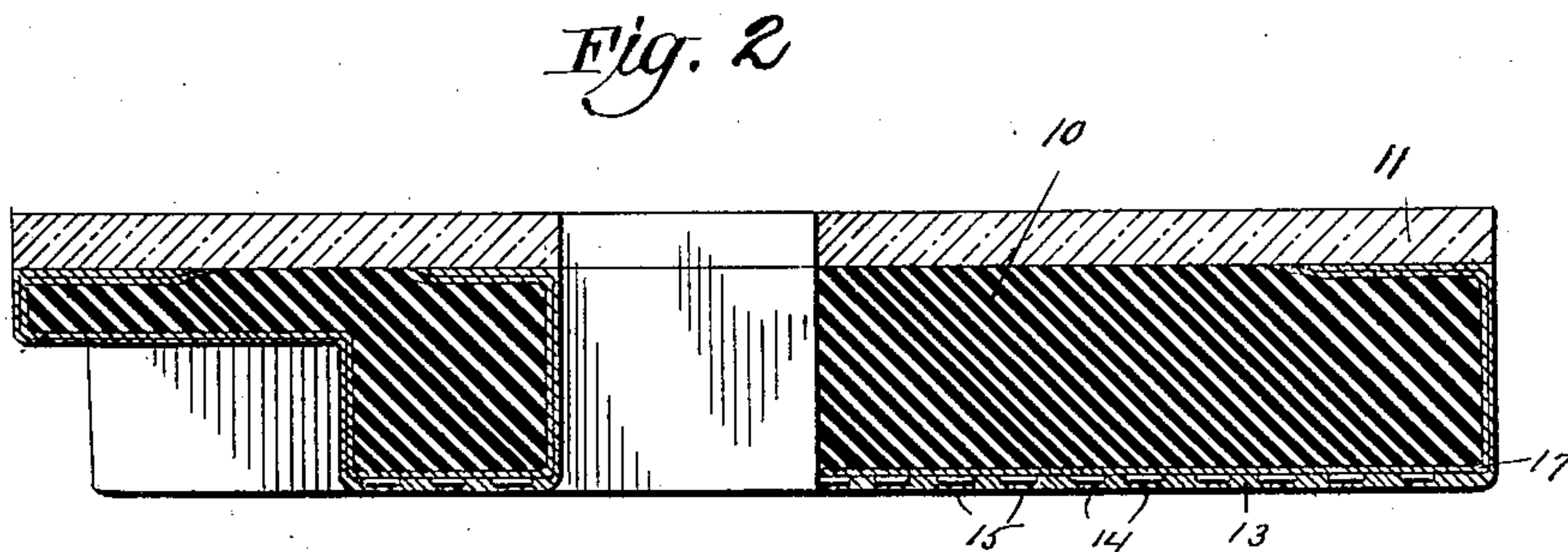
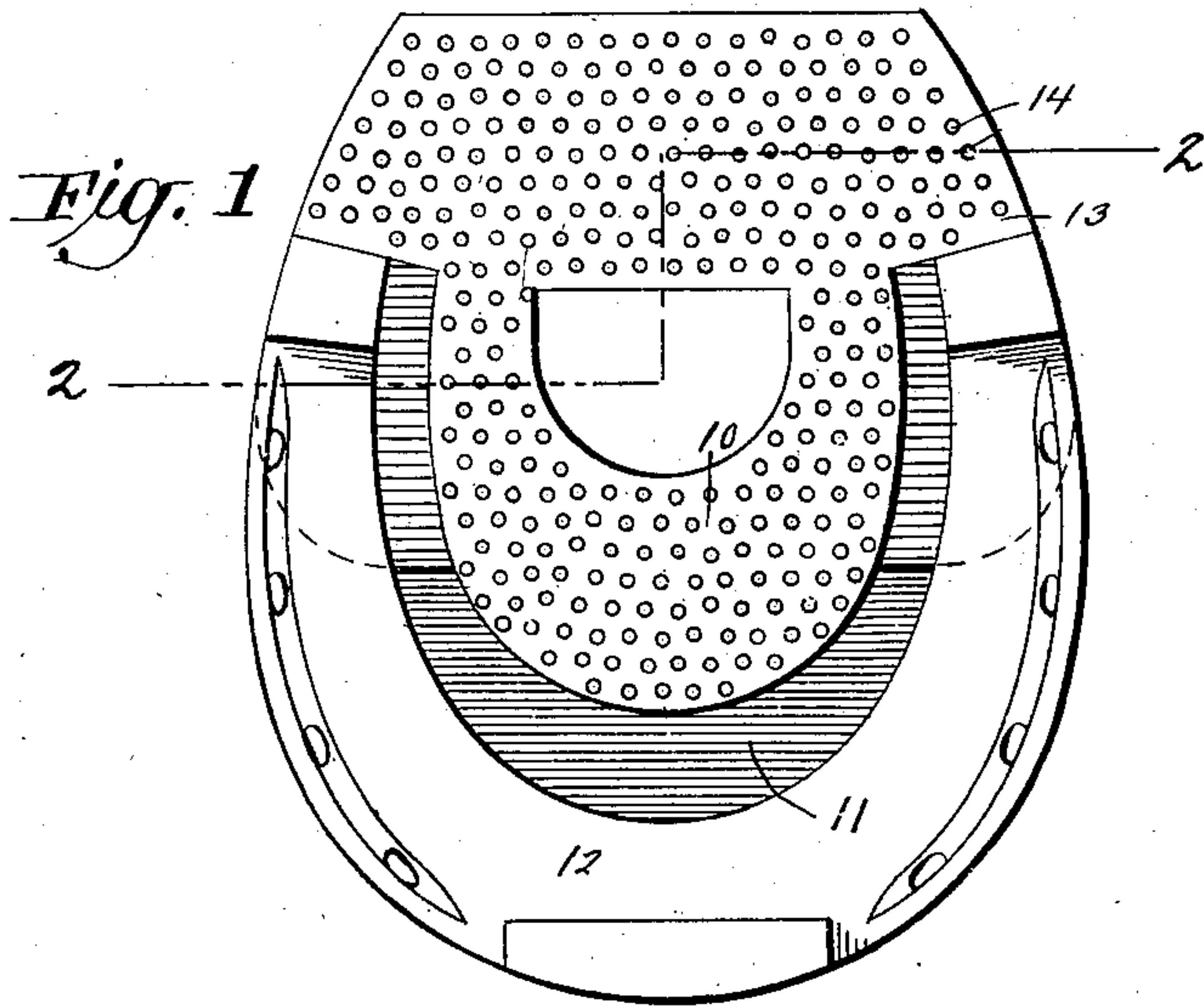
PATENTED JULY 21, 1903.

C. T. ADAMS.
CUSHIONED HORSESHOE.

APPLICATION FILED JULY 14, 1900. RENEWED DEC. 22, 1902.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES:

Louis Blodgett
David G. Rode

Calvin Hayer Adams
INVENTOR

BY *Charles R. Rode*
ATTORNEY

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2 SHEETS—SHEET 2.

Fig. 4

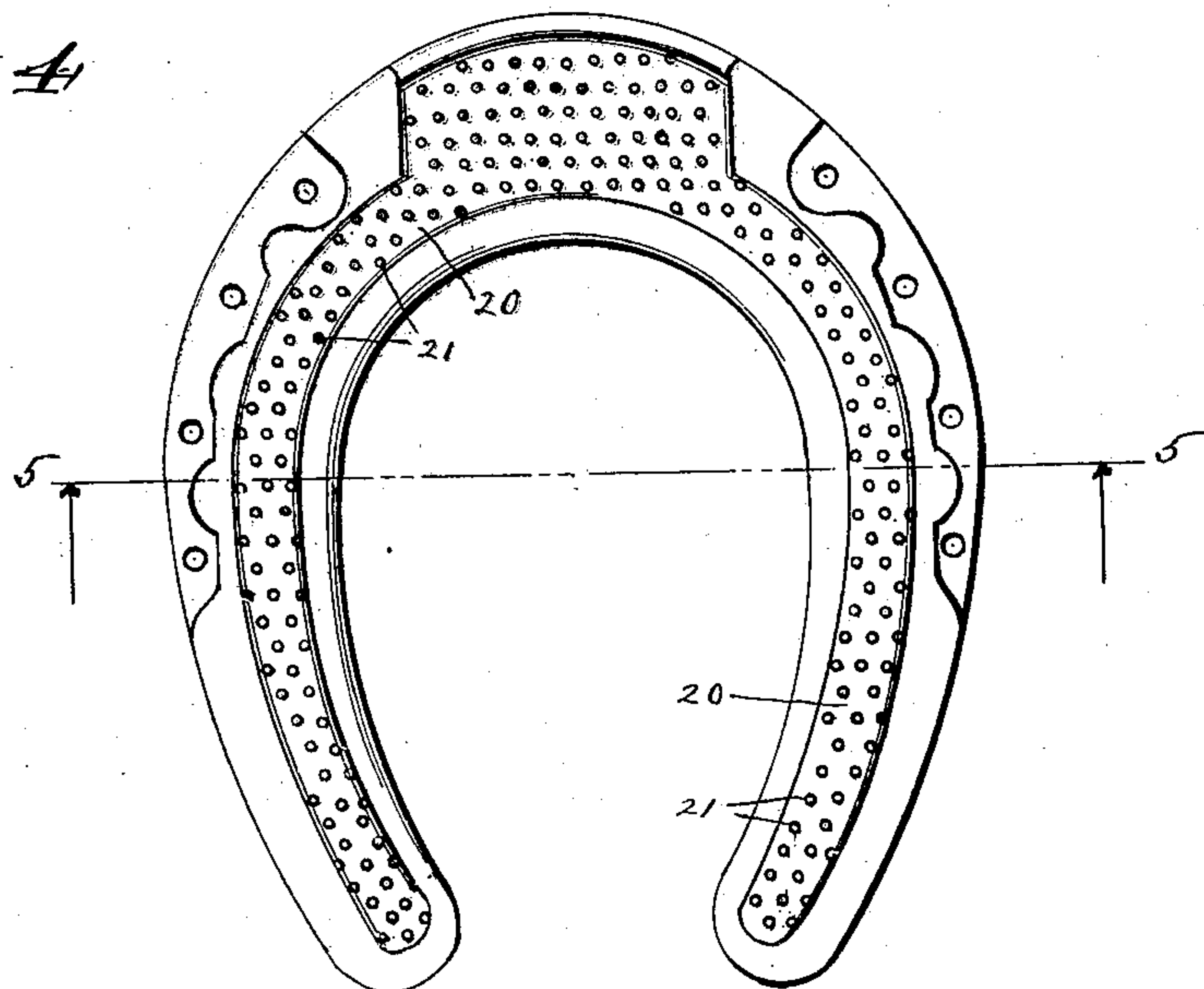


Fig. 5

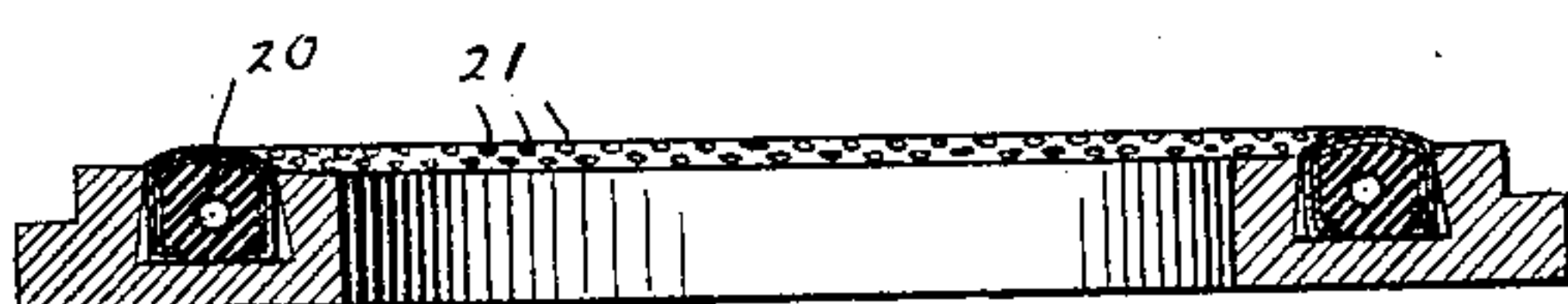
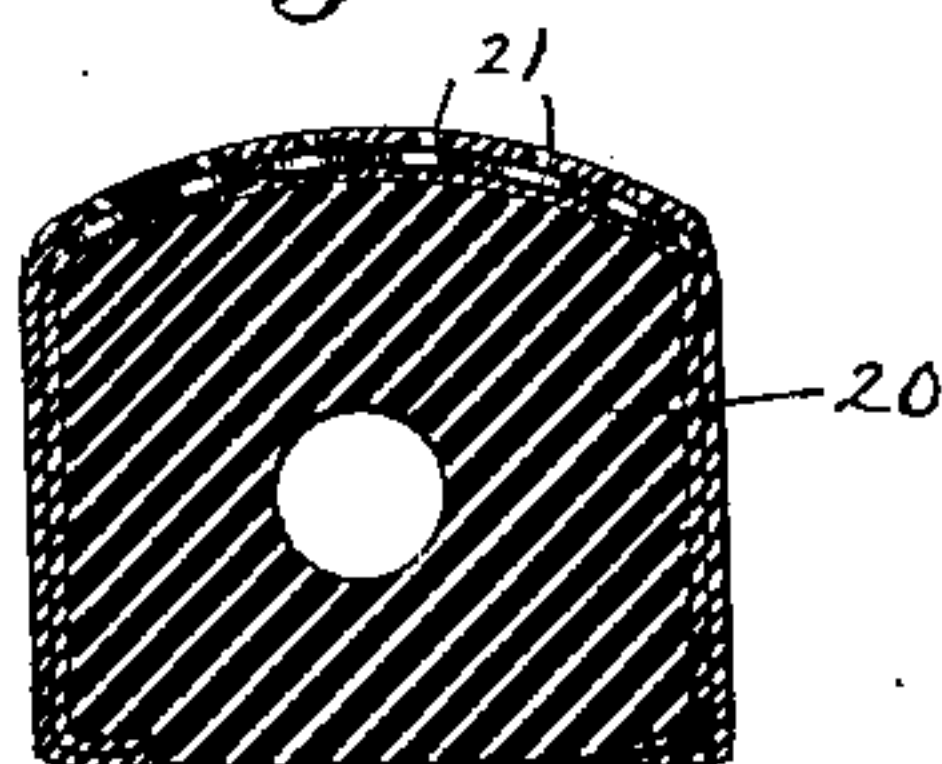


Fig. 6



WITNESSES:

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UNITED STATES PATENT OFFICE.

CALVIN THAYER ADAMS, OF NEW YORK, N. Y.

CUSHIONED HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 734,111, dated July 21, 1903.

Application filed July 14, 1900. Renewed December 22, 1902. Serial No. 136,241. (No model.)

To all whom it may concern:

Be it known that I, CALVIN THAYER ADAMS, a citizen of the United States, residing at 12 West Thirty-third street, in the borough of Manhattan, city, county, and State of New York, have invented a new and useful Improvement in Cushioned Horseshoes; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to horseshoes having rubber or other cushioned treads, which as commonly made are either fixed directly to or in the metallic shoe or to a leather pad interposed between the metallic shoe and hoof.

The object of my invention is effectually to prevent such cushioned horseshoes from slipping on wet or icy pavements and at the same time save the cushions from the excessive wear and tear to which they have heretofore been liable. I attain these ends by providing the horseshoe-cushion with a tread of preferably vulcanized fabric closely studded with metallic rivets or other hard bearings, which are securely retained in the tread by the meshes of the fabric and are exposed substantially flush on the surface of the tread, so as to effectually prevent slipping and wear.

In order that my invention may be more fully understood, I shall first describe in detail my mode of practicing the invention and then distinctly claim the same.

Reference is to be had to the accompanying drawings, forming part of this specification, in which the same parts are designated by like numerals in all the figures.

Figure 1 shows the under side of one form of cushioned horseshoe embodying my invention. Fig. 2 is a cross-sectional view on the broken line 2 2, Fig. 1. Fig. 3 is an enlarged section of the same. Figs. 4, 5, and 6 are plan and sectional views of another form of cushioned horseshoe embodying my invention.

In Figs. 1, 2, and 3, 10 is the rubber cushion, 11 the leather base bearing against the hoof to which the rubber cushion 10 is secured, and 12 the three-quarter iron shoe of a common type of cushioned horseshoe. I equip the rubber cushion 10 with my invention preferably in the following manner: Before cementing or otherwise securing the solid-rubber cushion to the base 11 I take a piece of preferably vulcanized fabric 13 of a size and

shape to cover the bottom and edges and turn in over the top of the solid-rubber cushion 10 and stud the bottom or tread portion of said fabric closely with metallic rivets 14, whose shanks are driven through the fabric by any suitable means or machine, the heads bearing against the inner surface of the fabric and are upset or clenched by longitudinal pressure, so as to form heads 15, bearing against and exposed substantially flush on the outer surface of the fabric. I then lay or cement on the inside of the fabric thus equipped another similar piece of plain fabric 17 and wrap the two-ply fabric thus formed around the bottom, sides, and margin of the top of the rubber cushion 10, bringing the rivets 14 on the bottom or tread. The rubber cushion and studded fabric are then pressed and vulcanized together in a suitable mold, making an integral armored cushion, which is then cemented or secured to the leather base 11 in the usual way. When the pad is in use, the heads 15 of the rivets, being exposed flush on the tread of the cushion and backed by the yielding body thereof, readily adapt themselves to find and engage the surface of the pavement and with the intervening rubber effectually prevent the shoe from slipping thereon, while at the same time the rivets are securely held against displacement by the lateral pressure of the fabric threads against their shanks, by the inner fabric ply 17 bearing against their inner heads, and by the upsetting and consequent expansion or enlargement of their outer ends. The rivets also by their close order take a large part of the wear off the rubber or vulcanized-fabric tread, and thus greatly prolong the life of the cushion.

The rubber cushions 20 of the form of horseshoe shown in Figs. 4, 5, and 6 are seated in recesses in the metal shoe itself after a well-known fashion. I apply my metallic rivets or bearings 21 to these rubber cushions by the method above described before inserting the cushions in the shoe-recesses. They then act to prevent slipping and save wear, precisely as in the form of shoe above described.

It is evident that my invention is likewise applicable to any other form of cushioned horseshoe having an elastic or cushioned

tread. It is also evident that the precise method of equipping the cushion with the rivets is immaterial and that the form of rivet or bearing may be greatly varied without departing from my invention. For example, the rivets may be woven in the fabric in the process of weaving instead of driven there-through, as described.

Having thus set forth the nature of my invention and the manner in which I carry the same into practice, I claim as new and desire to secure by Letters Patent—

1. A horseshoe-cushion having a yielding body and a woven-fabric tread attached there-

to studded with rivets driven through and clenched in the tread.

2. A horseshoe-cushion having a two-ply woven-fabric tread attached thereto, and metallic heads held in close order between the two woven-fabric plies and having shanks or projections extending through and exposed on the outer surface of the outer ply.

In testimony whereof I have hereunto set my hand the 1st day of June, 1900.

CALVIN THAYER ADAMS.

In presence of—

DAVID G. RODE,

CLARENCE L. BURGER.