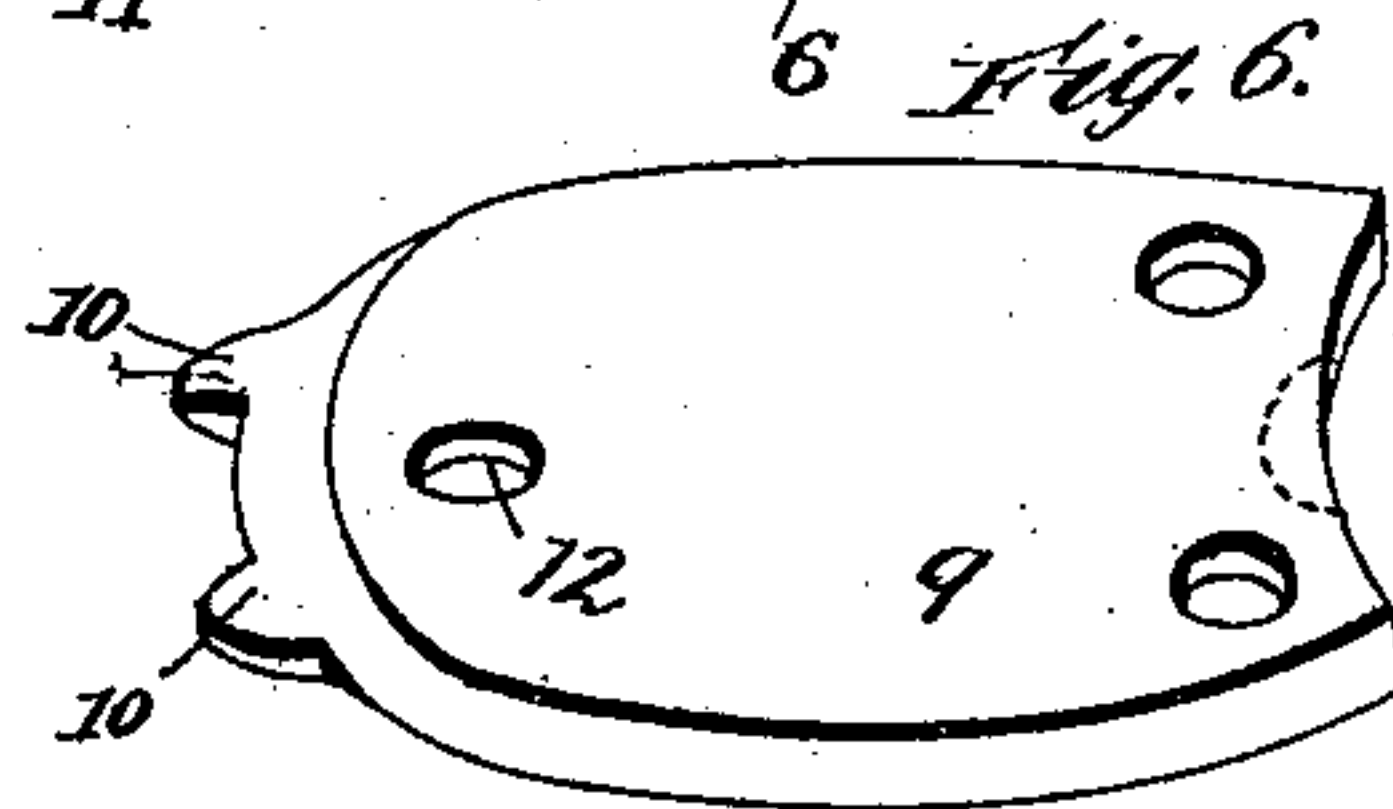
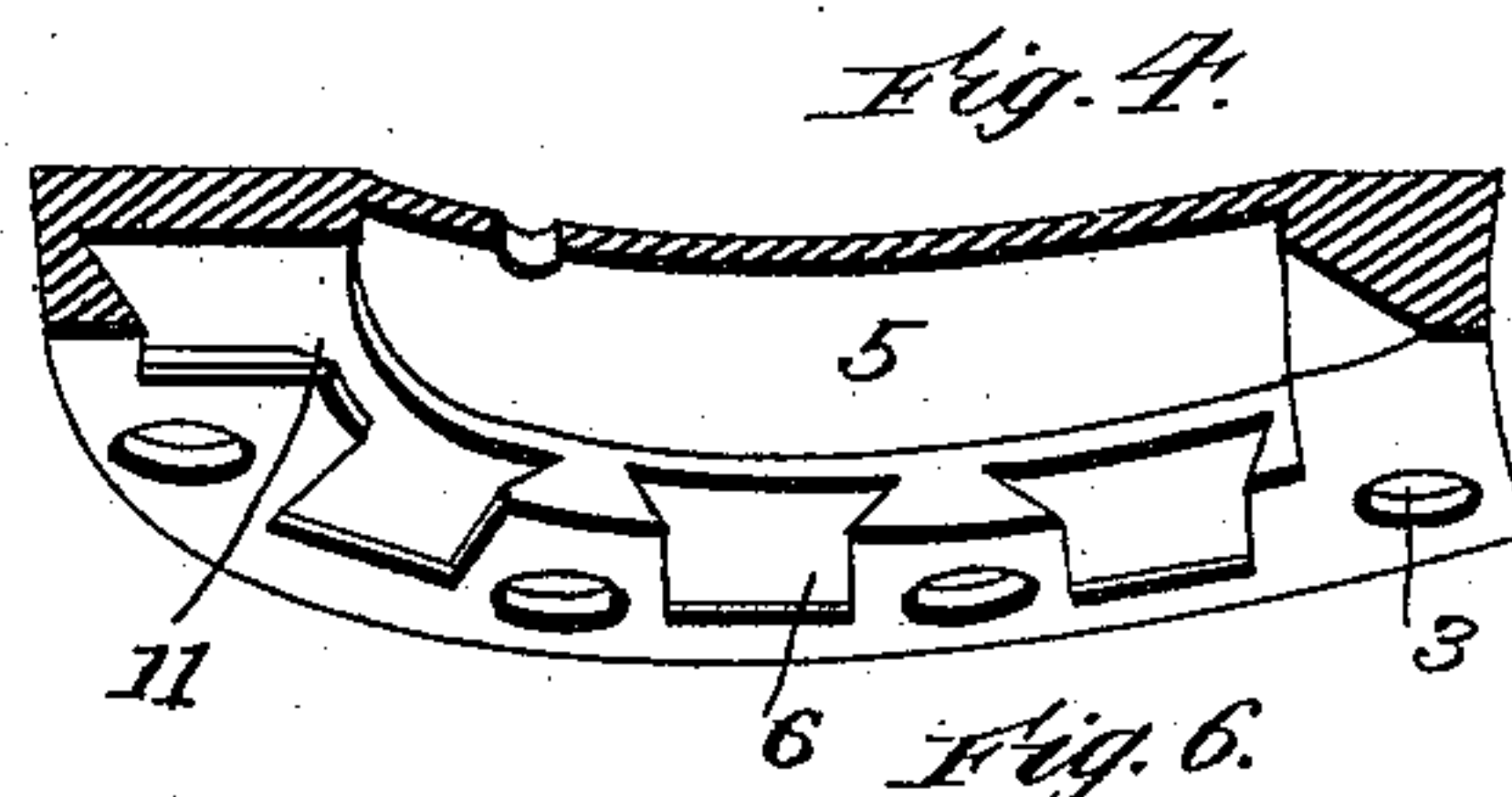
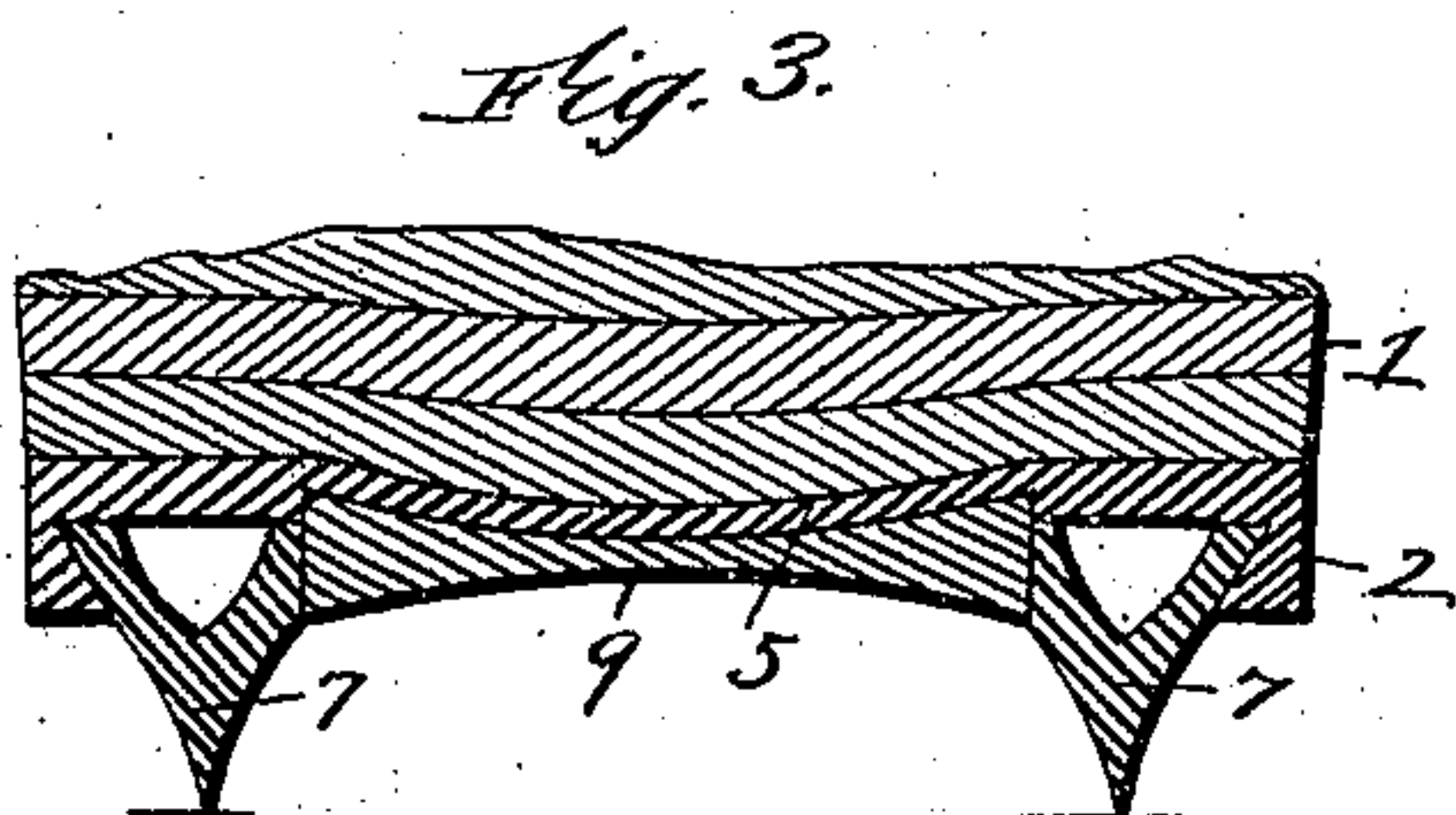
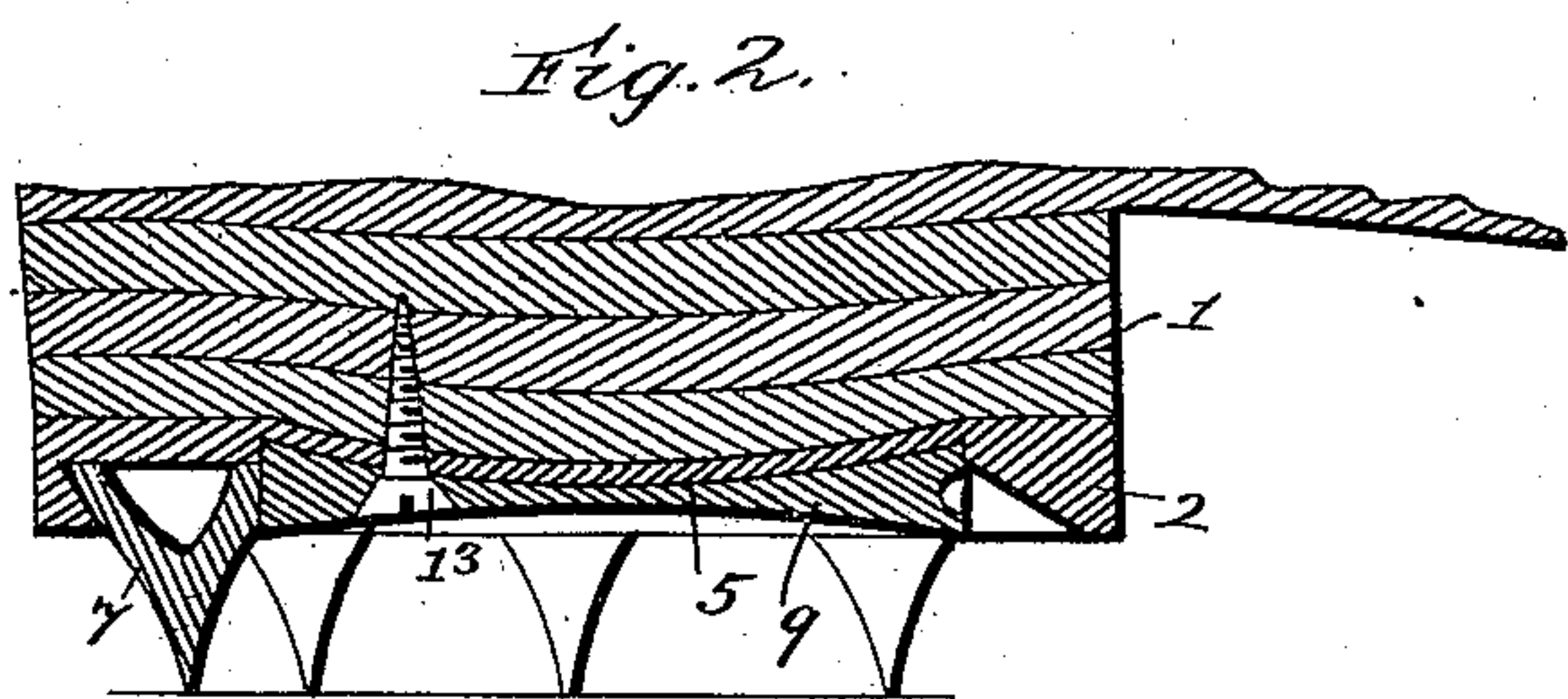
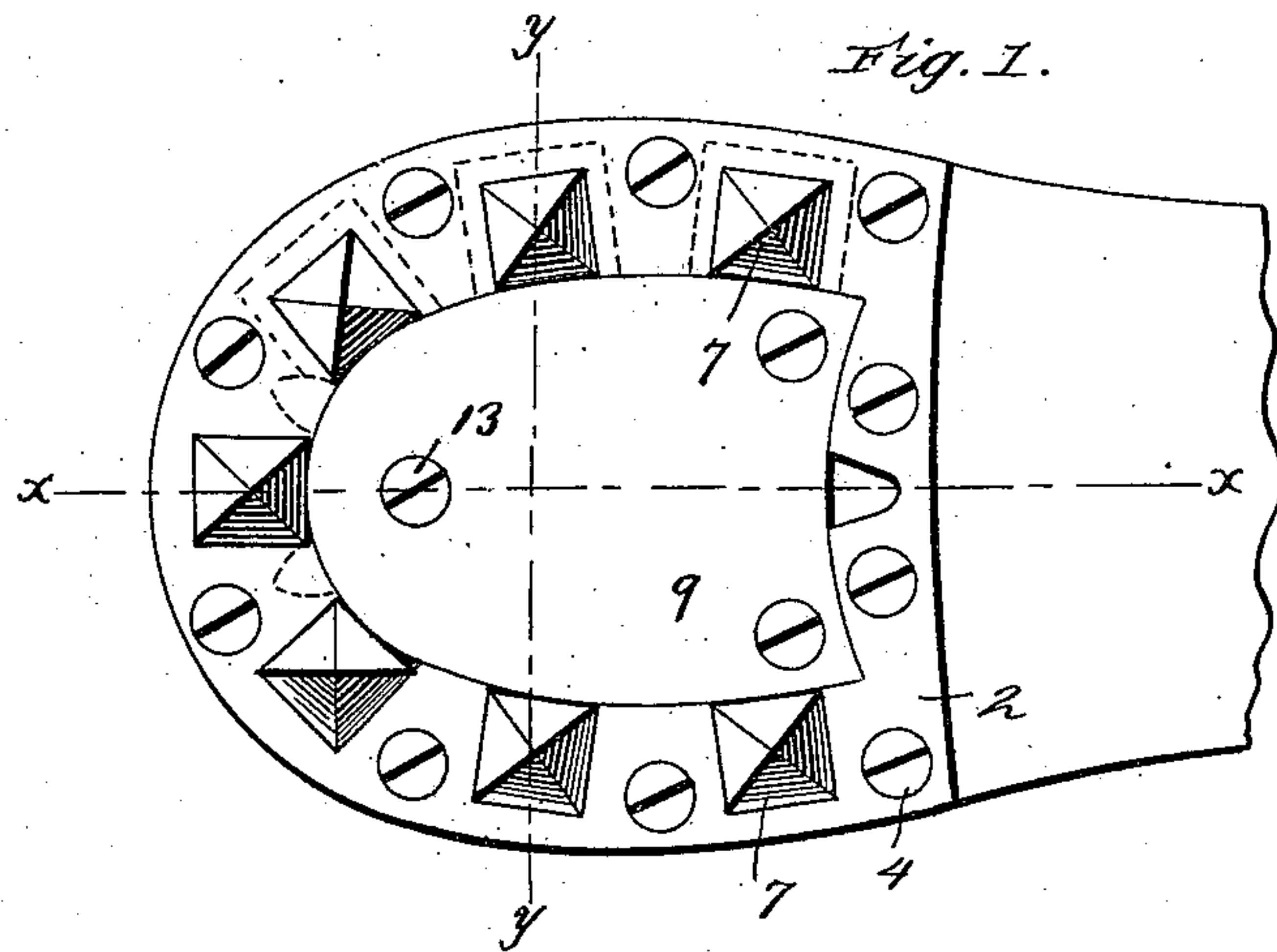


(No Model.)

H. P. ANDRESEN.
HEEL PLATE.

No. 575,662.

Patented Jan. 19, 1897.



Witnesses:
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UNITED STATES PATENT OFFICE.

HANS PETTER ANDRESEN, OF SEATTLE, WASHINGTON.

HEEL-PLATE.

SPECIFICATION forming part of Letters Patent No. 575,662, dated January 19, 1897.

Application filed August 5, 1896. Serial No. 601,785. (No model.)

To all whom it may concern:

Be it known that I, HANS PETTER ANDRESEN, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Heel-Plates; 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.

My invention relates to improvements in heel-plates; and it has for its general object to provide a heel-plate of a cheap and simple construction and one embodying calks which are so secured to the body of the plate that they may be readily removed when worn or broken and be replaced by new ones.

Other objects and advantages of the invention will be fully understood from the following description and claims, when taken in conjunction with the annexed drawings, in which—

Figure 1 is an inverted plan view illustrating my improved heel-plate secured to the heel of a shoe. Fig. 2 is a section taken in the plane indicated by the line *x x* of Fig. 1. Fig. 3 is a cross-section taken in the plane indicated by the line *y y* of Fig. 1. Fig. 4 is a sectional perspective view of the body of the heel-plate. Fig. 5 is a perspective view of one of the calks removed, and Fig. 6 is a detail perspective view of the calk-retaining plate.

In the said drawings similar numerals designate corresponding parts in all of the views, referring to which—

1 indicates the heel of an ordinary boot or shoe, and 2 indicates the body of my improved heel-plate, which is cast or otherwise formed in one piece of metal and is shaped to conform to the heel, as shown. This body 2 is provided adjacent to its edges and at suitable intervals with apertures 3 for the passage of screws 4, which connect it to the heel 1, and it is also provided with the central recess 5 and the undercut offset recesses 6, which communicate at their inner ends with the recess 5 and have their outer ends closed, as shown. The recesses 6 are of a dovetail or equivalent form in cross-section, and they are designed and adapted to receive the enlarged bases 7 of the calks 8, which

bases are shaped to conform to said recesses and are introduced at the ends of the same. The said calks 8 are preferably formed of steel, for obvious reasons, and are made hollow in order to lessen the weight of the heel-plate, and while three of their base edges are beveled, as shown, in order to conform to the walls of the recesses 6 their other edge is preferably left square, so as to abut against the square edges of the retaining-plate and thereby enable said plate to better hold them in position.

9 indicates the plate for retaining the calks 8 in the recesses 6 of the body 2. This plate 9, which may also be of cast metal, is shaped to conform to and snugly occupy the recess 5 of the body 1, and it is provided at one end with lugs 10, which are designed to take into undercut recesses 11 of the body 2 and assist in retaining the plate 9 to said body, and is also provided with apertures 12 for the passage of attaching-screws 13, which extend through apertures 14 in the body 2 and into the heel 1, and thereby perform the additional function of connecting the heel-plate to the heel.

It will be readily observed from the foregoing that when any one or more of the calks 8 are worn or broken they may be readily removed and replaced with new ones without disconnecting the body 1 from the heel, it being simply necessary, in order to effect this, to detach and remove the plate 9 and then remove the damaged calks 8 and replace them with new ones, and then replace and fasten the plate 9 to the body 2 and the heel.

Calks of various lengths to suit different conditions may be employed in my improved heel-plate, and, when desired, a plurality of sets of calks of different lengths may be furnished with each plate, and the wearer of the plate may remove one set and replace it with a new set of different length, when desired.

In addition to preventing wear of the heel of a shoe it will be seen that my improved heel-plate will serve as an efficient ice-creeper.

Having described my invention, what I claim is—

1. The heel-plate described comprising the body having the central recess in its under side and also having the offset recesses of dovetail form in cross-section closed at their

outer ends and communicating at their inner ends with the central recess, calks having bases shaped in conformity to and arranged in the offset recesses of the body, and the calk-retaining plate arranged in the central recess of the body and connected to said body, substantially as and for the purpose set forth.

2. The heel-plate described comprising the body having the central recess in its under side and also having the offset recesses of dovetail form in cross-section closed at their outer ends and communicating at their inner ends with the central recess, and further having the undercut recesses 11, also communi-

cating with the central recess, calks having bases shaped in conformity to and arranged in the offset recesses of the body, and the calk-retaining plate arranged in the central recess of the body and connected to said body and having lugs arranged in the recesses 11, of the body substantially as and for the purpose set forth.

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

HANS PETTER ANDRESEN.

Witnesses:

WM. C. DASHIELL,
THOMAS E. TURPIN.