

No. 825,437.

PATENTED JULY 10, 1906.

J. B. WHITE.
HORSESHOE.

APPLICATION FILED APR. 30, 1904.

3 SHEETS—SHEET 1.

Fig. 1.

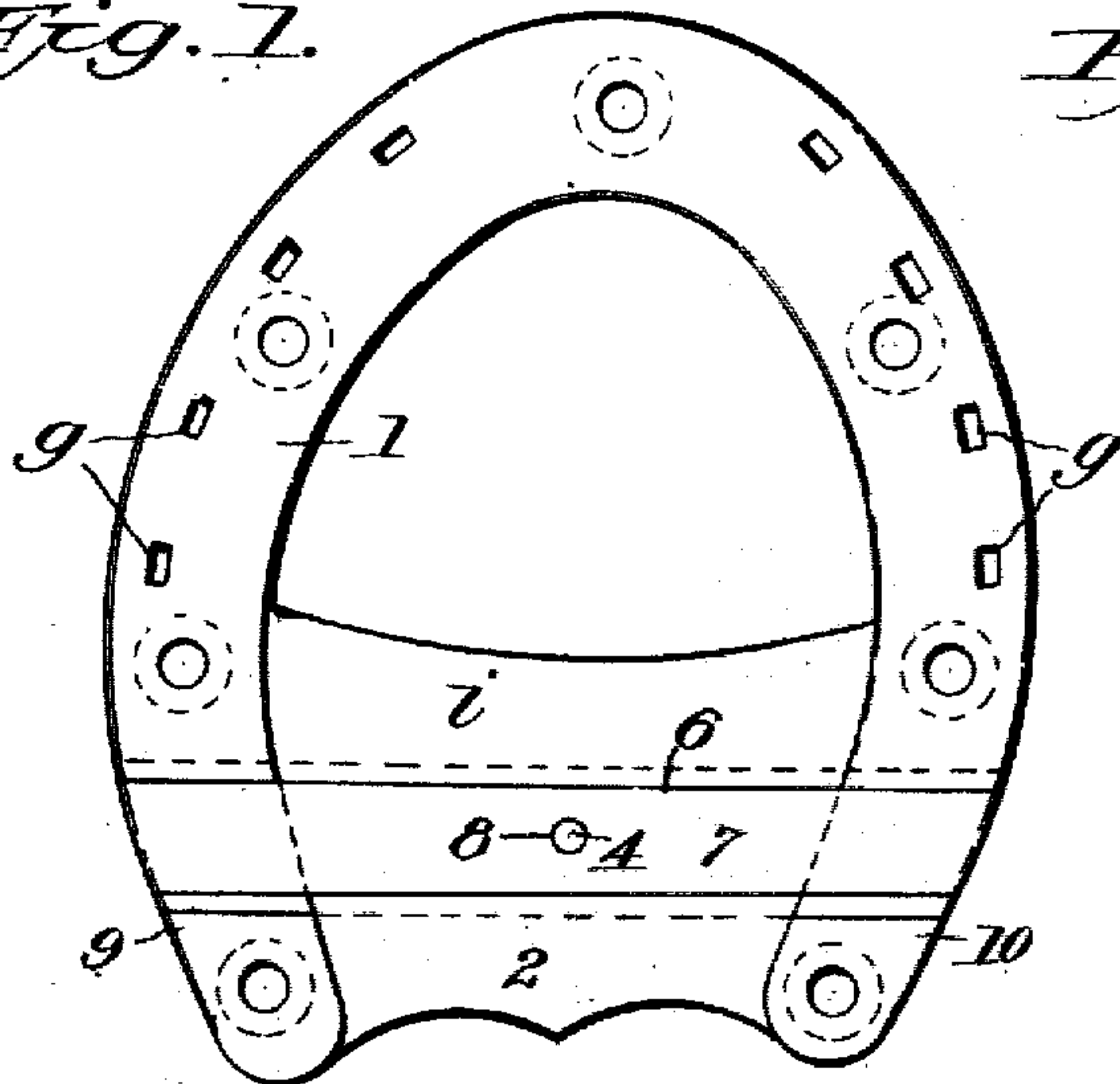


Fig. 3.

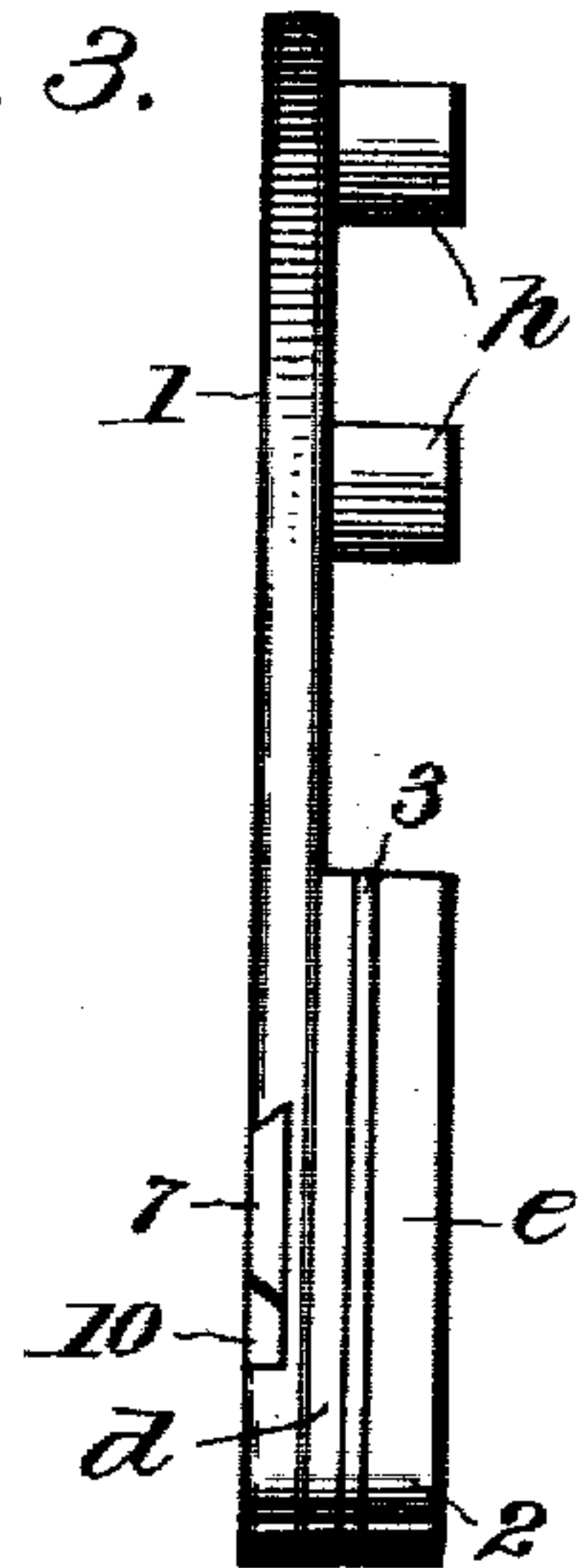


Fig. 2.

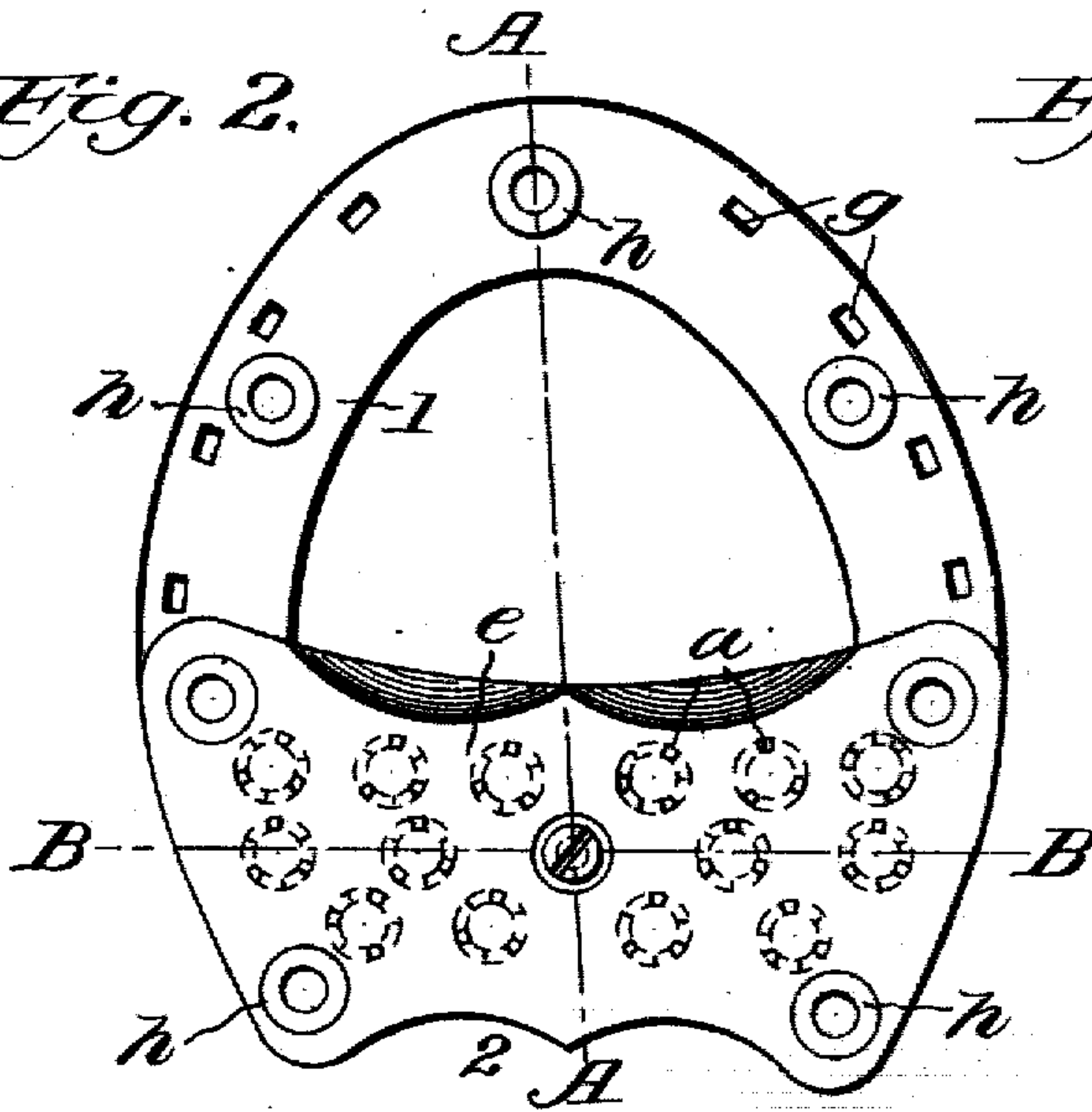


Fig. 4.

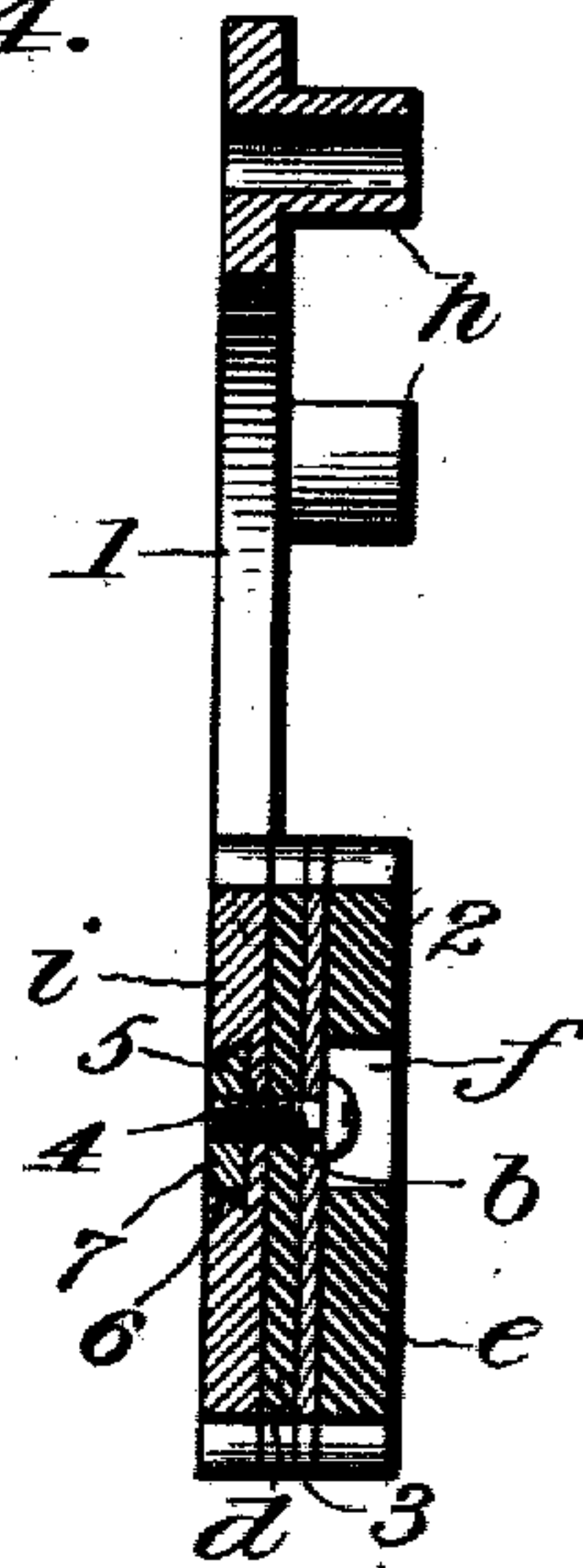
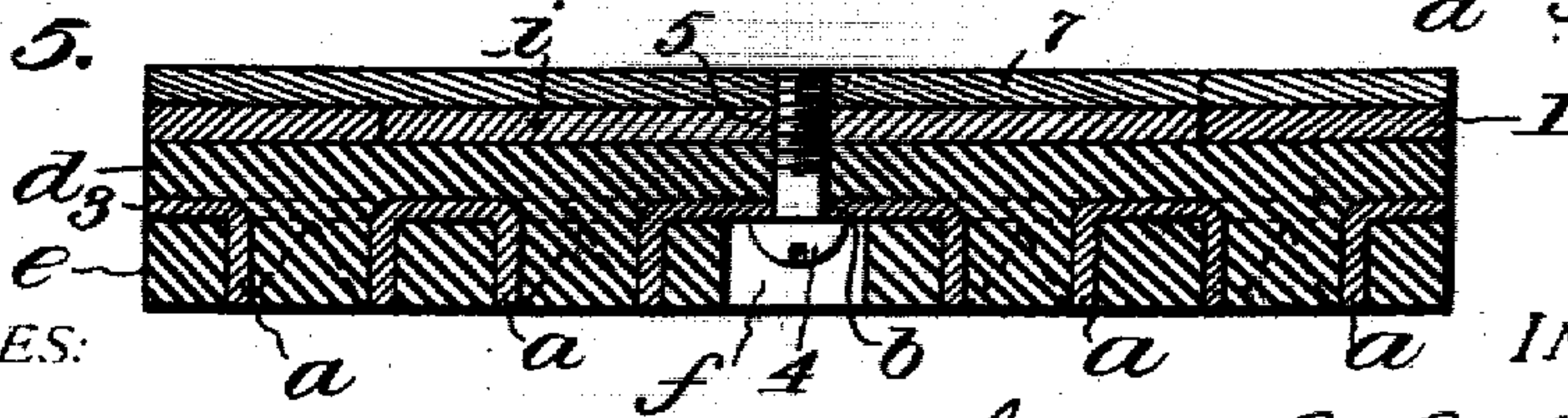


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 6.

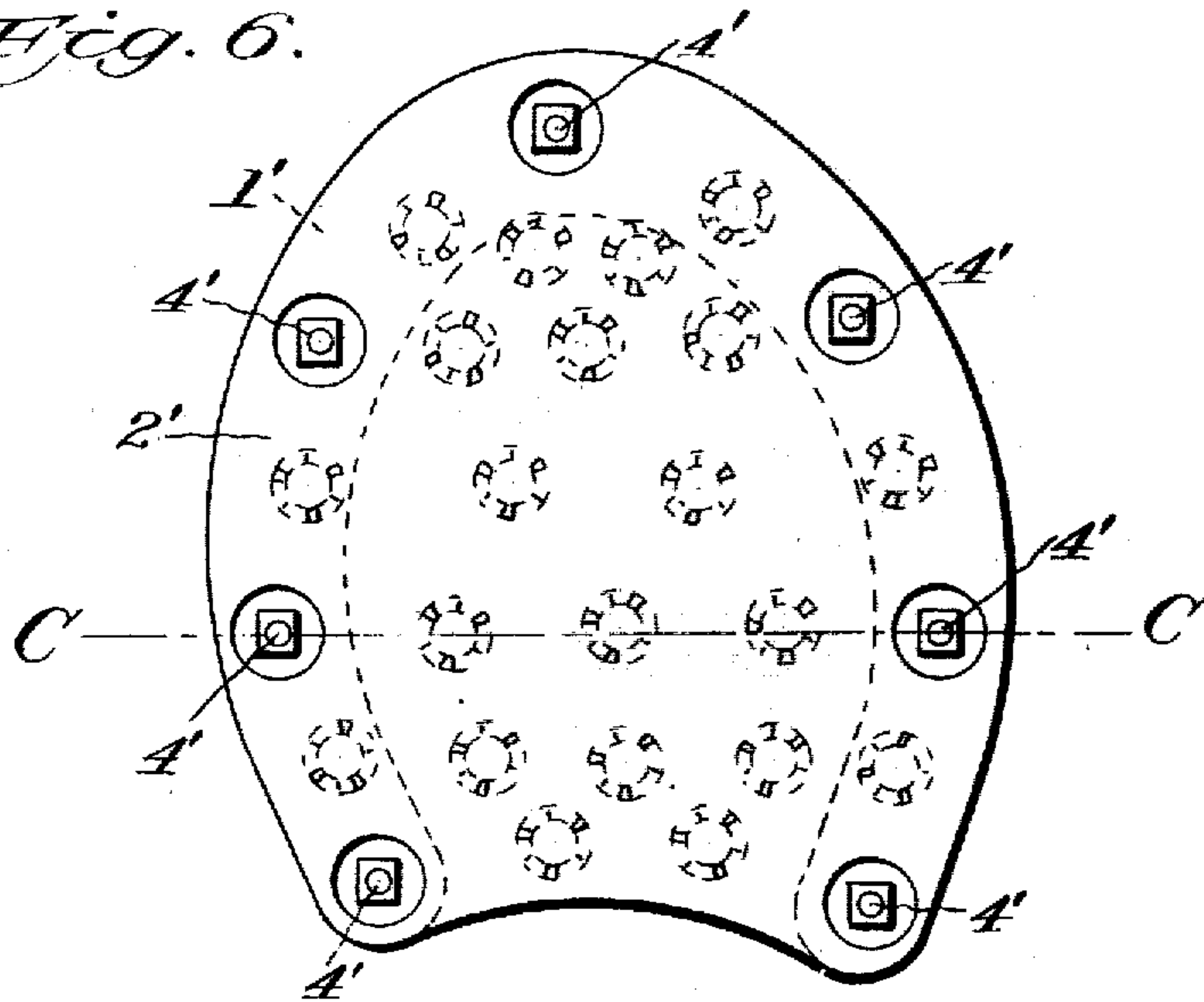


Fig. 7.

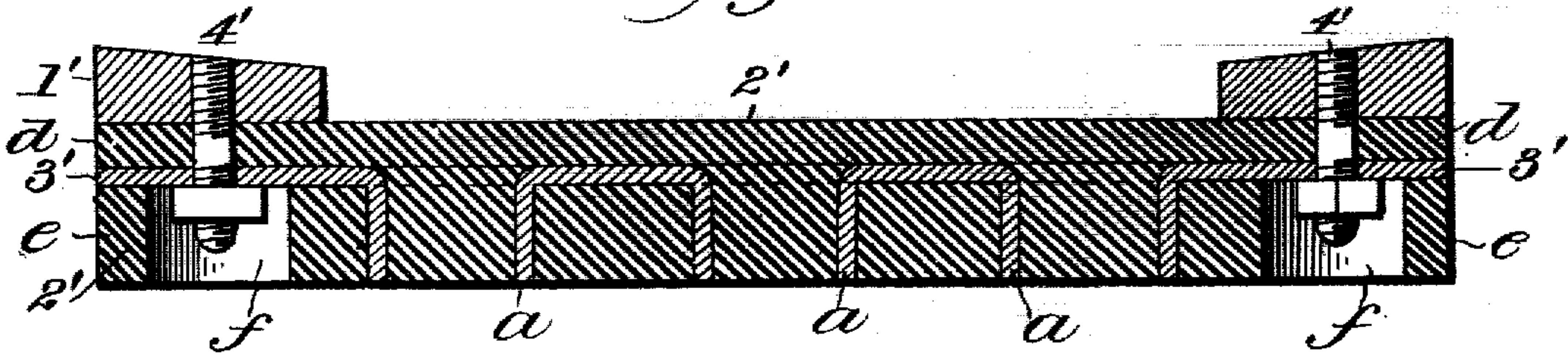
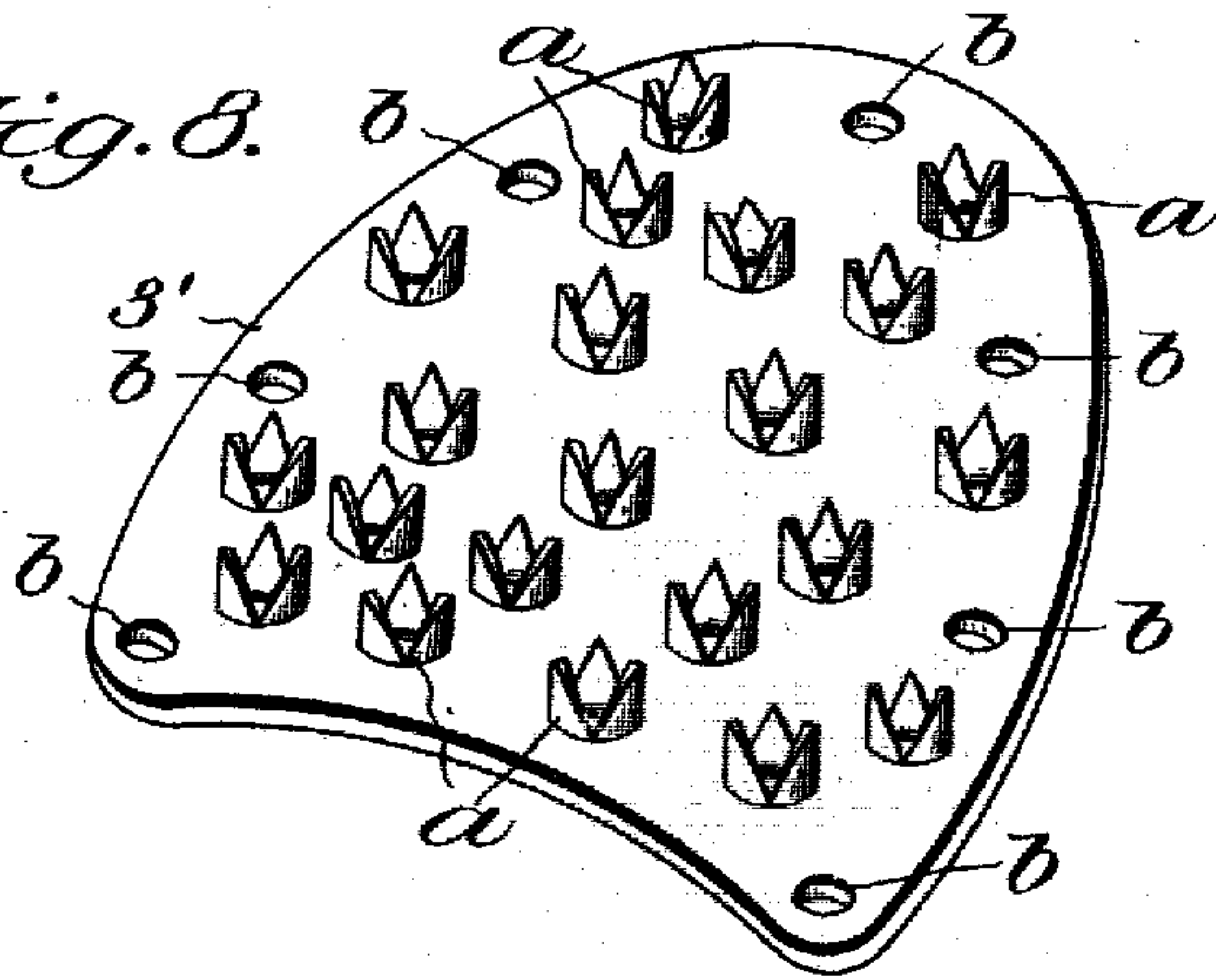


Fig. 8.



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UNITED STATES PATENT OFFICE.

JOHN B. WHITE, OF BUFFALO, NEW YORK.

HORSESHOE.

No. 825,437.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed April 30, 1904. Serial No. 208,753.

To all whom it may concern:

Be it known that I, JOHN B. WHITE, a citizen of the United States of America, and a resident of the city of Buffalo, in the State of New York, have invented a new and useful Improvement in Horseshoes, of which the following is a specification.

This invention relates to soft-tread horseshoes; and it consists in certain novel features of construction involving new combinations of parts hereinafter set forth and claimed.

The objects of the invention are to effectively roughen the shoe without impairing the cushioning qualities of the elastic portion or "soft-tread" feature and to facilitate securely supporting between the heel ends of the shoe a removable heel-cushion.

Two sheets of drawings accompany this specification as part thereof.

Figures 1 and 2 are respectively top and bottom views of an improved horseshoe, illustrating the present invention. Fig. 3 is an edge view projected from Fig. 1. Fig. 4 represents a longitudinal section on the line A A, Fig. 2. Fig. 5 represents a cross-section on the line B B, Fig. 2, enlarged one diameter. Fig. 6 is a bottom view of another improved shoe, illustrating the same invention in part. Fig. 7 represents a cross-section on the line C C, Fig. 6, enlarged one diameter; and Fig. 8 is a perspective view of the roughening or calking plate of the horseshoe last named.

Like reference numbers and letters indicate like parts in the several figures.

The improved horseshoe in either of the specific constructions shown in the drawings comprises two main portions 1 or 1' and 2 or 2', which are respectively the body portion or shoe proper, of iron or soft steel, and the elastic pad portion or cushion, mainly of "rubber" or an equivalent resilient and waterproof material adapted, preferably, to be molded. For clearness these two portions are hereinafter termed, respectively, the "iron portion" and the "elastic portion" of the horseshoe.

The iron portion 1 or 1' is preferably of a simple one part construction, as indicated, but may be of any known or improved make that is not inconsistent with the respective combinations herein specified and claimed.

The elastic portion 2 or 2' in both species has as its principal distinguishing feature a roughening or calking plate 3 or 3', of sheet-steel, punched so as to form suitably-distrib-

uted ragged eyelets *a* with downwardly-projecting ever-sharp points and one or more bolt-holes *b*, through which the attaching bolt or bolts 4 or 4' extend and around each of which said calking-plate forms an effective washer. Layers *d* and *e* of the rubber or its equivalent that forms the body of the elastic portion are located both above and below the calking-plate, which is located higher or lower within the elastic portion, according to the original length of the points of the ragged eyelets *a*. The extremities only of these points are exposed, and they are adapted to continue to form effective sharp calkings until the elastic portion is well worn, owing to the uniform or substantially uniform thickness of the metal in the points throughout their length. Concentric with each bolt-hole a recess *f* is formed in the outer layer of the rubber or its equivalent to admit the head or nut of the corresponding bolt 4 or 4'.

In the species represented by Figs. 1 to 5, inclusive, the iron portion 1, in addition to suitably-located holes *g*, through which to drive ordinary horseshoe-nails for attaching the shoe to the hoof, is provided with tubular studs *h* on its face, adapted to hold plugs of steel or of solidified carborundum to form calks or to receive elastic plugs, of rubber or the like, or to serve as calkings without such plugs, as may be preferred. The studs *h* near the ends of the shoe occupy holes in the elastic portion 2 and assist to hold the same in position. This elastic portion 2 of the first species is confined to the heel of the shoe and includes a metallic top plate *i*, adapted to fill the rearwardly-converging space between the heels and provided with a bolt-hole 5, through which the attaching-bolt 4 of the elastic portion extends, and with a transverse dovetailed seat 6 in its top, into which a metallic key-bar 7 is fitted, this key-bar having a threaded hole 8 to interlock with said bolt 4 and the top of the shoe having depressions 9 and 10 undercut in front to interlock with the respective ends of said key-bar. To remove the elastic portion 2 for renewal or for other purposes, it is only necessary to remove or partially remove the one screw 4. The key-bar 7 may then be slipped endwise from the shoe and the elastic portion 2 as a whole be taken off.

In the second species (represented by Figs. 6, 7, and 8) the iron portion 1' is preferably and conveniently provided with nail-holes *g*, as in the first species. Attaching-bolts 4' in

the form of short stud-bolts project downwardly a sufficient distance from the bottom of the iron portion 1', and the elastic portion 2', which covers the entire bottom of the shoe, is fastened in place by these bolts, the nuts of which are screwed tight against the calking-plate 3' as a washer, as shown in Fig. 7.

The bolt-holes in the elastic portion and calking-plate in either species may obviously be in the form of notches to facilitate adjustment. The holes 5 in the elastic portion 2 of the first species may be internally threaded and the holes 8 omitted, so that the screw 4 will bind against the bottom of the key-bar 7, and other like modifications will suggest themselves to those skilled in the art.

Having thus described said improvement, I claim as my invention and desire to patent under this specification—

1. A horseshoe comprising an iron portion and an elastic portion, the latter provided with a calking-plate of sheet-steel having within the body of said elastic portion downwardly-projecting ragged eyelets having points of substantially uniform thickness throughout forming ever-sharp calkings integral with the body of said plate.

2. A horseshoe having, in combination, an iron portion provided with means for attaching the shoe to the hoof and with downwardly-projecting studs, an elastic portion having embedded within it a calking-plate provided with downwardly-projecting points forming ever-sharp calkings, holes to admit said studs, and recesses extending from the face of the elastic portion to said calking-

plate, and fastening means within said recesses seated on said plate.

3. A horseshoe having, in combination, an iron portion provided with means for attaching the shoe to the hoof, downwardly-projecting studs near the ends of the shoe and depressions in the top of the shoe undercut in front, an elastic portion having holes to admit said studs and provided with a metallic top plate having a transverse dovetailed recess, a dovetailed key-bar occupying said depressions and said dovetailed recess, and a fastening-bolt extending upwardly through said elastic portion into said bar.

4. A horseshoe having, in combination, an iron portion provided with means for attaching the shoe to the hoof, downwardly-projecting studs near the ends of the shoe and depressions in the top of the shoe undercut in front, an elastic portion having holes to admit said studs and provided with a metallic top plate having a transverse dovetailed recess, and with a calking-plate embedded within the body of said elastic portion and with a recess beneath said calking-plate, a dovetailed key-bar occupying said depressions and said dovetailed recess, and a fastening-bolt having its head within said recess and extending upwardly through said elastic portion and through said calking-plate and top plate into said bar, substantially as hereinbefore specified.

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