No. 858,368. PATENTED JULY 2, 1907.

F. O. BROWN.

INNERSOLE FOR BOOTS AND SHOES.

APPLICATION FILED NOV. 14, 1906.

Fig. 1.

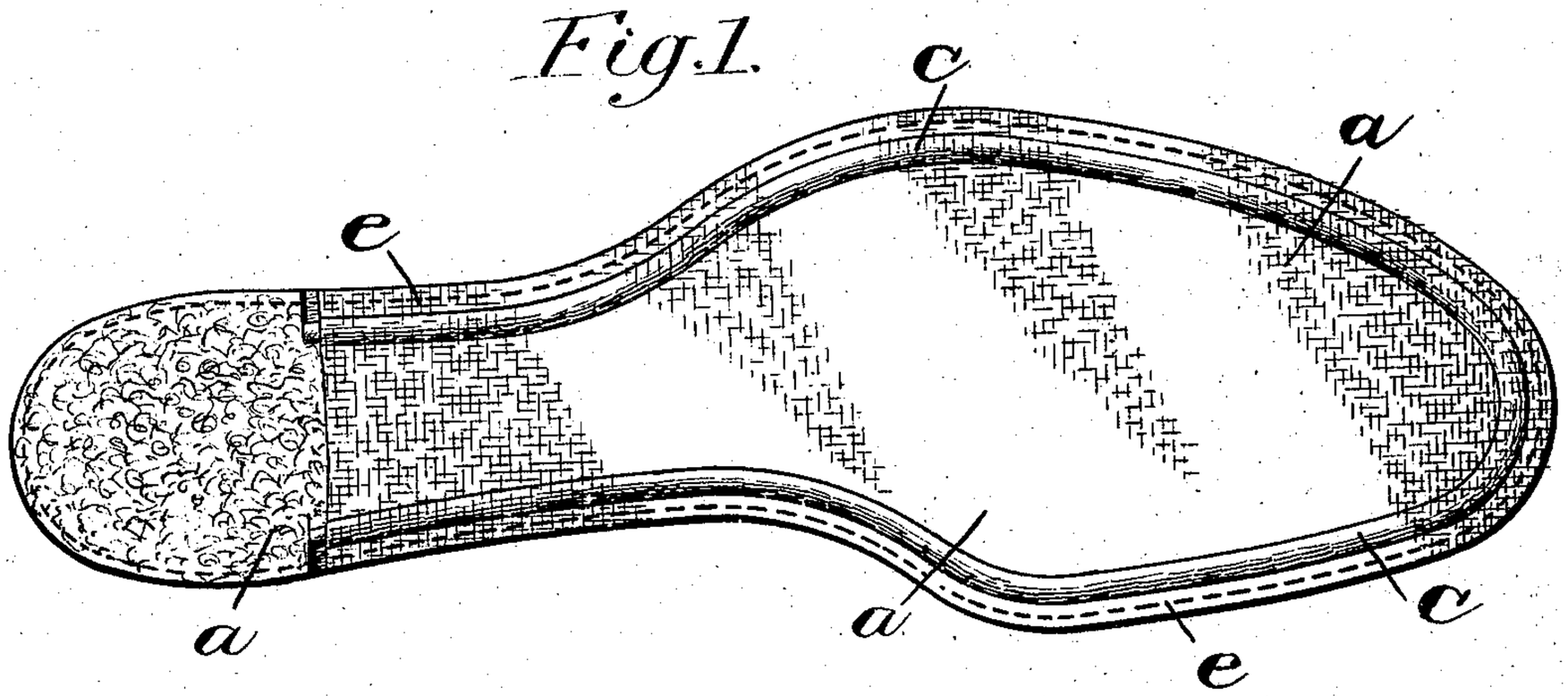


Fig. 2.

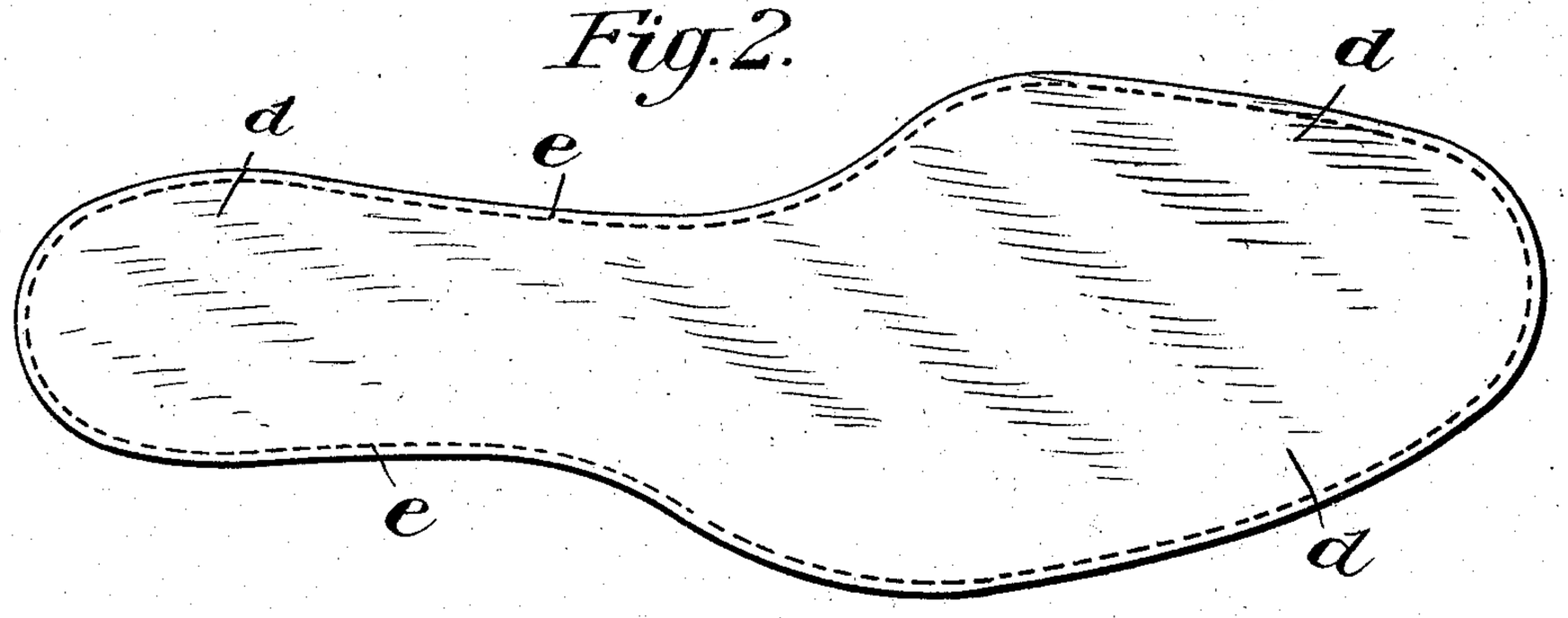


Fig. 3.

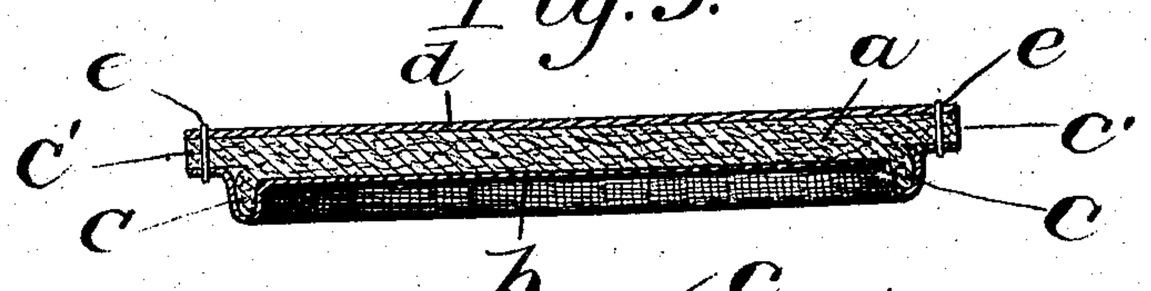
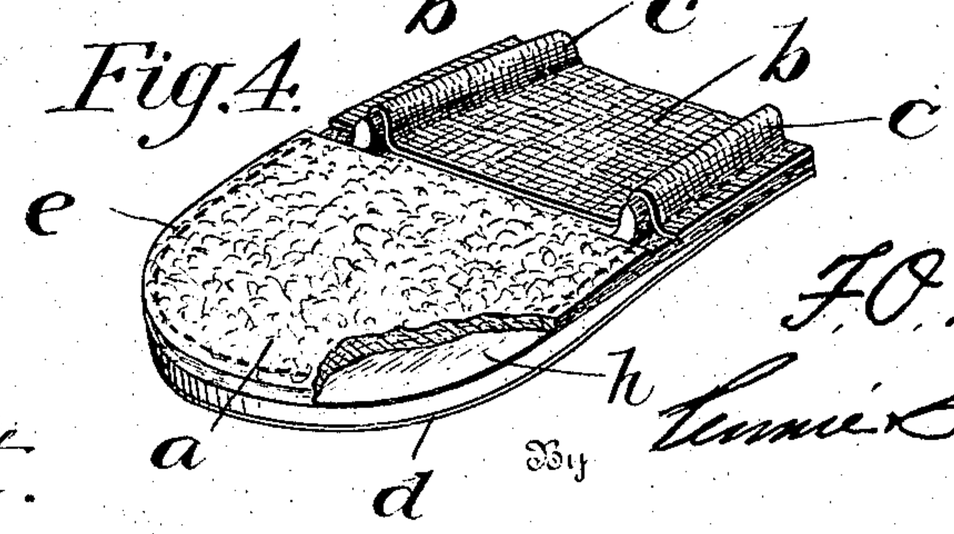


Fig. 4.



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UNITED STATES PATENT OFFICE.

FREDERICK ORRIN BROWN, OF ST. LOUIS, MISSOURI.

INNERSOLE FOR BOOTS AND SHOES.

No. 858,368. Specification of Letters Patent. Patented July 2, 1907.

Application filed November 14, 1906. Serial No. 343,362.

To all whom it may concern:

Be it known that I, FREDERICK ORRIN BROWN, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Innersoles for Boots and Shoes; and I do hereby 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.

This invention relates to a hygienic cushion inner sole for boots and shoes, composed of canvas, felt, calf skin or sheep skin and sole leather, in combination consisting of felt covered and reinforced with canvas by the gem process, the heel being reinforced by the sole leather reinforcing piece immediately under the felt, the calf skin or other soft covering extending only to the edge of the sole, the whole combination of materials being attached or fastened together by stitching around the edge by ordinary commercial shoe stitching machine.

The object in view is to provide as an integral part of a boot or shoe a porous, strong and flexible inner sole, especially one which will provide a soft, yielding and elastic support for the foot; and with these objects in view, the invention consists in the construction illustrated in the accompanying drawings and explained in the following description.

Referring to this drawing, Figure 1 is a plan view of the under side of the sole; Fig. 2 is a similar view of the top side; Fig. 3 is a transverse section of the sole in the position it occupies in the shoe; and, Fig. 4 is a perspective of the under side of the heel portion of the sole.

In all these figures, *a* denotes a flat, relatively thick sheet of strong felt, preferably that known commercially as "piano" felt. The upper side of this sheet of felt has a covering *d* of calf skin or other soft leather stitched thereto, and the margin of the felt is split edgewise into two parts, *c* and *c'*, as best shown in Fig. 3, the part *c* being bent perpendicularly to the plane of the felt, forming a flange or wale to which the welt and the upper or vamp are sewed in a well known manner.

The portion of the sole comprising the heel is reinforced with a piece of sole leather *h* placed between the felt and the covering of calf skin or other soft leather, as best shown in Fig. 4. The under side of the felt is covered with a layer *b* of the canvas or other strong textile material, and the canvas also covers the projecting flange *c* and the portion *c'* of the felt which projects beyond the flange. This canvas cover is cemented to the flat part of the felt inside of the flange, and is moreover cemented to the flange itself on both sides, so as to stiffen the same and hold it projecting from the felt, as shown in Figs. 3 and 4. This canvas cover is stitched to that portion of the felt inner-sole which is outside of and beyond the shoulder, otherwise known as the flange or wale this outer portion of the felt innersole being known as the "feather", so as to stiffen the same and hold it projecting from the felt, as shown in Figs. 3 and 4.

For the purpose of more rigidly uniting the canvas and leather coverings to the felt sole, and especially to prevent the separation of these coverings from the projecting edge *c'* of the felt, a line of stitching *e* is passed all the way around the margin just outside of the flange *c*.

The construction being as thus described, it is to be noted that the sole has a marked degree of strength and flexibility, combined with a soft yielding and elastic support for the foot.

As will be understood by those skilled in the art, the flange or wale to which the welt and upper are sewed is formed by what is commercially known as the "gem" process, and it is believed that the present invention presents the first instance of the combination of a composite innersole formed of felt inclosed between a covering of calf skin or soft leather on the upper side with sole leather heel reinforcing, the two coverings being stitched to the felt shoulder only, and extending only to the edge of insole and the whole being additionally fastened together by stitches running around and through the margin of the felt and calf skin or other soft leather outside of the wale.

Having thus described my invention, what I claim is

A flexible inner sole to form an integral part of a boot or shoe, the same comprising a relatively thick sheet of elastic and porous felt having its edge slotted to make a perpendicular flange forming a wale to sew to, a sheet of canvas cemented to the under side of the felt, a covering of thin soft leather secured to the upper side of the felt, a piece of sole leather secured between the felt and its leather covering at the heel, and a line of stitching around the edge of the sole outside of the flange, the stitches extending through the felt, the canvas and leather coverings, and the heel reinforcing piece.

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

FREDERICK ORRIN BROWN.

Witnesses:

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