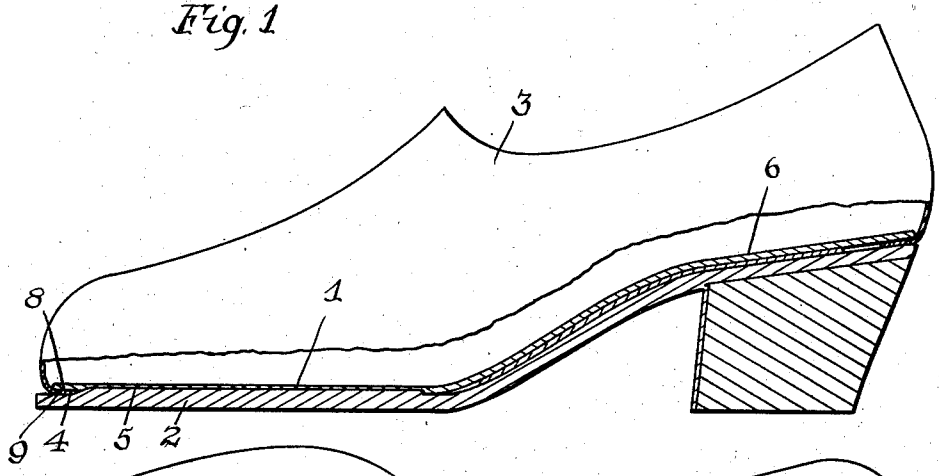
June 23, 1942. A. RUGGIERO 2,287,643

SHOE

Filed March 26, 1935

Fig. 1



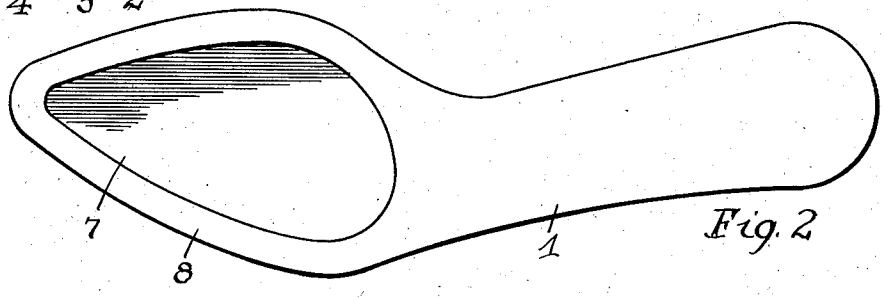
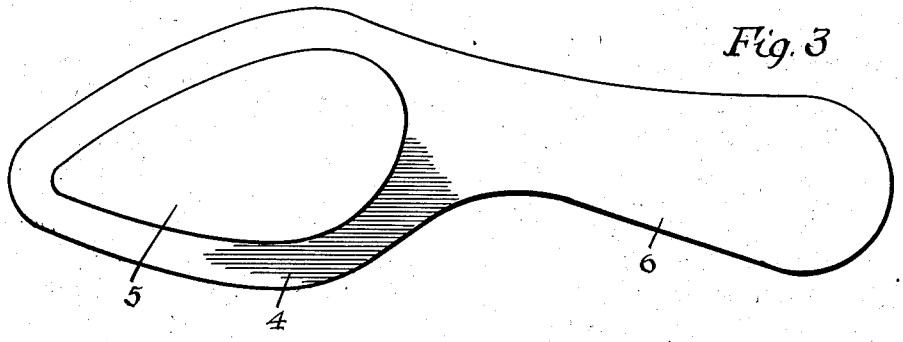


Fig. 2

Fig. 3



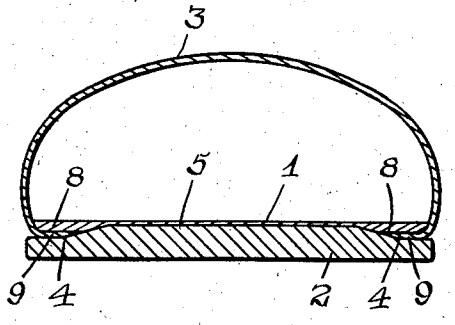


Fig. 4

INVENTOR
Anthony Ruggiero
BY Russell P. Griffith
his ATTORNEY

Patented June 23, 1942

2,287,643

UNITED STATES PATENT OFFICE

2,287,643

SHOE

Anthony Ruggiero, Rochester, N. Y.

Application March 26, 1935, Serial No. 13,062

2 Claims. (Cl. 36—12)

My present invention relates to shoe manufacture and more particularly to the construction of shoes embodying an outsole and an insole with the margins of the upper secured to or between them, whether the shoe is of the "McKay," welt, stitched, cemented or other type, and it has for its general object to provide a shoe of this character and a method of making it whereby great flexibility of the sole portion is attained, while a smooth and continuous finish is furnished by the insole itself without resort to the addition of sock linings or similar contrivances. To these and other ends, the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of this specification.

In the drawing:

Fig. 1 is a side elevation of a shoe, partly in central longitudinal section through the sole portion thereof, the same being constructed in accordance with and illustrating one embodiment of my invention;

Fig. 2 is a bottom plan view of the insole showing its under or outer side;

Fig. 3 is a top plan view of the outsole showing its inner or upper side, and

Fig. 4 is a transverse section through the toe portion of the shoe, slightly enlarged.

Similar reference numerals throughout the several views indicate the same parts.

My prior patent, No. 1,728,366, dated Sept. 17, 1929, shows a flexible sole shoe construction in which a relatively heavy outsole is skived around the margins to produce a channel in which is laid on the inside what is called a "rand," the edges of the upper being laid and secured therebetween. The said rand ordinarily is constituted by the cutting from the outsole, or it may be formed from a separate piece of material. At any rate and in either case, it consists of a loop-like edge portion, open at the center that requires to be precisely placed in the channel of the outsole. If the upper is lasted to it in advance of its application to the outsole, it is apt to become distorted because it is not inherently self-supporting and has not enough body or connection between its parts to hold its shape against distortion. In any event, its connection with the outsole leaves a raw seam on the inside of the shoe, the roughness of which must be concealed to protect the foot by the application of a sock lining or similar inner covering, particularly where cement is used to join the parts, in which instance the cement escapes in some quantity along this inner seam.

With my present construction, quite as flexible a sole is produced, yet it obviates the objections related as well as adding other advantages to the shoe construction. Referring more particularly to the drawing, 1 indicates the insole, 2 the outsole and 3 the upper. The outsole, as usual, has its grain side outermost and the inner flesh side is skived at 4 around the ball or toe portion to a depth and width consistent with the forthcoming description of the assembly leaving a raised central portion 5 of maximum thickness. In the construction illustrated, the skiving is continued to the heel portion 6 but this is immaterial to the present objects, the important provision being the central thickness 5.

The insole 1 is formed in a complementary fashion to, in general, fit the outsole. That is, it is skived thin on the flesh side to provide a hollowed portion or concavity 7 that fits over and receives the central raised or thick portion of the outsole. The inner and upper grain surface alone is left at the center to span this thick portion of the outsole. At the edges of the insole, a thick encircling portion 8 is left which fits into the skived recess 4 of the outsole, that is, it fits it to the extent that the marginal edge 9 of the upper 3 is accommodated between the two still leaving the inside surface of the insole flat and continuous. Such raw edges of the upper are preferably ground or skived angularly in conjunction with the immediately cooperating surfaces of the insole and outsole at the marginal line between the thicker portion of the former and the thinner portion of the latter that the combined result is a laminated sole for the shoe as a whole having uniform thickness from side to side, as illustrated in Fig. 4.

As before mentioned, these three parts at the common joint may be secured together in any manner known to shoemaking, but I prefer cementing and the illustration conforms to that practice. In the process of assembly, the upper 3 is lasted with the insole 1, cemented and tacked or otherwise temporarily secured thereto and then the outsole is applied, after the removal of the tacks, and cemented to the upper and directly also to the insole throughout their area of contact, as again appears in Fig. 4.

It will thus be seen that I have produced a shoe construction in which the toe or ball portion has the extreme flexibility of a single sole shoe; nevertheless an insole is provided that gives a smooth and continuous interior finish and foot

contact without the provision of a sock lining and without the chance of the cement or other fastening means becoming exposed on the interior, while at the same time the upper is lasted upon an insole capable of maintaining its shape without distortion, such as results from a marginal rand that has no body connection across the area of the ball or toe portion of the shoe.

I contemplate imparting to the insole the conformation described by pressing its edges down upon an anvil support of suitable form that will raise its center from the surrounding surface and then grinding or skiving the cavity 7 from the central portion thus upraised, but my invention relating thereto will be described and claimed in another application separate herefrom.

While the improvements herein disclosed are particularly applicable to the making of leather shoes, wherein the flesh sides of the insole and outsole elements are secured together with the tougher grain sides exposed interiorly and exteriorly, respectively, broad features of my invention are applicable to the formation of laminated flexible soles for shoes consisting of the various compositions constituting substitutes for leather.

I claim as my invention:

1. In a shoe, an insole having heel, shank and marginal forepart portions of insole thickness and having an integral relatively thin membrane at its central forepart area, and an outsole having a complementary raised land at its central forepart area fitted against and supporting said membrane.

2. A shoe comprising an insole having heel, shank and marginal forepart portions of insole thickness and having an integral relatively thin membrane at its central forepart area, an upper lasted to the under side of said insole with its lasting allowance at the forepart terminating short of said membrane, an outsole attached beneath said lasted upper and having a raised projection at its central forepart area fitting beneath said membrane and supporting it at the level of the interior surface of the insole.

ANTHONY RUGGIERO.