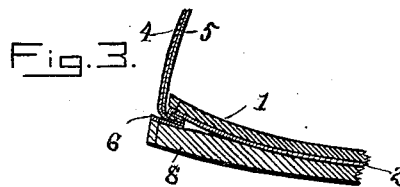
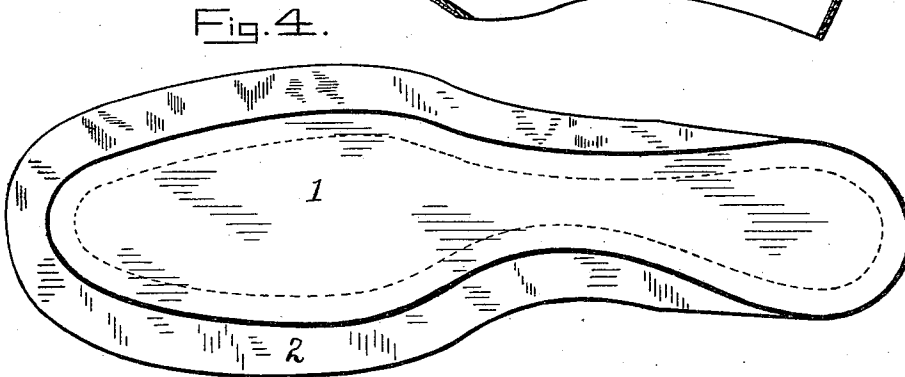
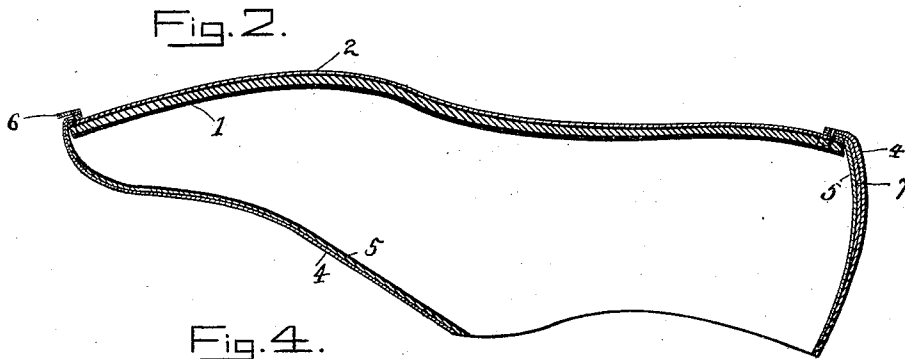
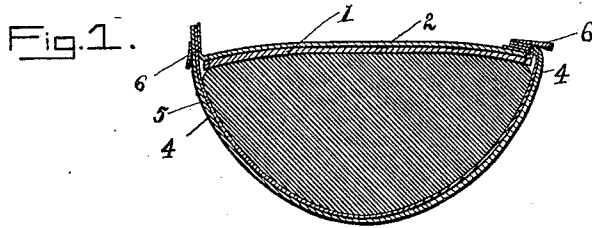


(No Model.)

J. HECKEL.
SHOE.

No. 459,722.

Patented Sept. 15, 1891.



WITNESSES:
Fred S. Church
A. M. Kelly

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UNITED STATES PATENT OFFICE.

JOHN HECKEL, OF ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF TO
WILLIAM A. BROOKS AND JAMES G. BROOKS, OF SAME PLACE.

SHOE.

SPECIFICATION forming part of Letters Patent No. 459,722, dated September 15, 1891.

Application filed January 15, 1891. Serial No. 377,865. (No model.)

To all whom it may concern:

Be it known that I, JOHN HECKEL, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful
5 Improvements in Shoes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures
10 of reference marked thereon.

My present invention has for its objects to provide an improved shoe whereby a more flexible and better article will be produced, particularly adapted for ladies' wear, and
15 whereby also the cost of the shoe will be materially decreased and the necessity of employing special machines for sewing the upper and insole together will be dispensed with.

To these and other ends the invention consists in certain improved constructions and combinations of parts, all as will be herein-
20 after fully described, and the novel features pointed out in the claim at the end of this specification.

In the drawings, Figure 1 is a cross-sectional view of a shoe constructed in accordance with my invention before the application of the
25 outer sole, showing the position of the parts on one side before sewing; Fig. 2, a longitudinal sectional view of the same; Fig. 3, a view of the completed shoe, and Fig. 4 a view of the insole employed.

Similar numerals of reference indicate
35 similar parts.

In carrying out my invention I first prepare an inner sole, such as shown in Fig. 4, consisting of a piece 1, shaped to the form of shoe desired, and composed, preferably, of
40 leather or similar material, and to this is secured an outer piece 2 of canvas, drilling, or, if desired, thin flexible leather, the prime requisite being that the edges of this piece shall be as pliable, or nearly so, as the materials mentioned. The parts of the insole
45 are secured together, preferably, by a line of stitches 3 near the edge of portion 1, and the edges of the part 2 extend considerably beyond part 1, as shown, particularly at the
50 fore part—that is, back to the counter or in-step, though, as will be understood, it may

extend back of this in some kinds of shoes. The operator now lays this insole, with the part 1, inside upon the last, and then draws the edges of the upper 4 and lining 5 over, 55 turning back the free edge of the portion 2 of the insole, and then, laying a welt 6 on the outer side of the upper, as in Fig. 1, sews through the welt, upper, and edge of part 2 of the insole, this sewing extending from one 60 end to the other of the welt. The counter 7 may, before the lasting and sewing, be inserted between the upper and lining, as usual, and the edge of the upper tacked to the insole and counter, as usual. The edges of the 65 upper and the turned edge of the part 2 of the insole are now trimmed off, and the outer sole 8 is sewed to the welt in the usual or any preferred manner, as shown in Fig. 3. The shoe thus formed is much more flexible than 70 one in which the upper is sewed to the under side of a channeled insole, as an insole capable of being channeled must be quite thick to cause the stitches to hold, and also this manner of making a sewed shoe does not require a channeled insole, nor does it require the 75 use of a curved-needle machine in sewing. By locating the relatively stiffer portion 1 of the insole, the edge of which extends out beyond the line of stitches uniting it to the flexible 80 outer portion inside the shoe, the edge of the upper will be held out and the shoe will preserve its shape better than if the insole were reversed and the portion 2 placed next the last when lasting; but this latter construc- 85 tion might be employed without departing from the broad idea of my invention, as it would form a shoe with an insole having flexible edges and a relatively stiffer central part. However, I prefer the construction shown for 90 obvious reasons. As the stiff part of the insole is not sewed directly to the upper and welt, the shoe will be very flexible, and as I have found in practice desirable for ladies' wear. 95

I do not claim, broadly, a shoe having an insole composed of relatively rigid and flexible portions, nor a shoe having such an insole with the edges of the flexible part secured to the sole by sewing. 100

I claim as my invention—

As an article of manufacture, a shoe hav-

ing an insole composed of two parts 1 and 2, the former located inside the shoe being relatively smaller, stiffer, and connected to the part 2 near the edges, and the latter being
5 more flexible, said insole being connected to the welt and upper by a line of stitches extending only through the outwardly-turned

edges of the flexible portion, the upper and the welt, and an outer sole secured to the welt, substantially as described.

JOHN HECKEL.

Witnesses:

FRED F. CHURCH,
JAMES G. BROOKS.