

J. F. DAVIS.
SHOE.

APPLICATION FILED FEB. 7, 1910.

989,950.

Patented Apr. 18, 1911.

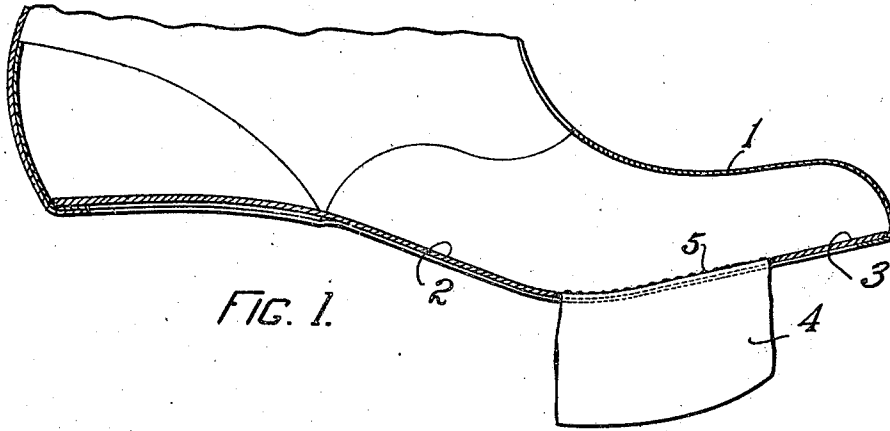


FIG. 1.

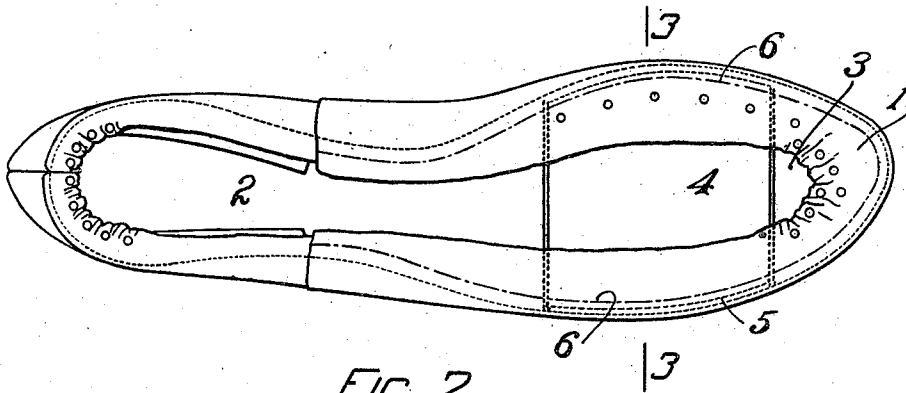


FIG. 2

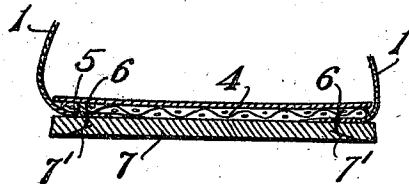


FIG. 3

WITNESSES

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SHOE.

989,950.

Specification of Letters Patent. Patented Apr. 18, 1911.

Application filed February 7, 1910. Serial No. 542,444.

To all whom it may concern:

Be it known that I, JOHN FREDERICK DAVIS, a citizen of the United States, residing at Freeport, county of Cumberland, State of Maine, have invented certain new and useful Improvements in Shoes, of which the following is a specification.

This invention relates to shoes and particularly to the construction of a shoe in the sole portion thereof.

In the modern shoe, as commercially manufactured in this country, there has been a constant tendency toward straightening vertically the form of the last. The standard type of shoes at present is constructed with an arch, well carried forward on the outside of the foot in order to tilt the upper portion of the foot inward and thus prop the foot into an erect attitude with the toes directed as much as possible in an outward direction.

The natural foot is of course formed to rest upon its outer side with somewhat of a tendency to "toe in" and in this position the great toe normally lies flat. As the foot accustoms itself however, to the artificially erected position, the great toe is bent and the second joint thrown out. This causes an exaggeration of the ball of the great toe and increases the effects at the ball of that toe of every flexure of it. The human foot therefore, on the average, is distorted at that point. When, therefore, the foot is incased in an ordinary shoe a heavy strain is thrown on it at the area of the ball of the great toe. This strain is divided between the upper and the sole and hence there is exerted upon the stitching a strong ripping strain which is increased by the tendency of the foot to roll over to its natural position on its outer side. It is this strain which causes so many well made shoes to rip or break out along the stitching at the inner side of the shoe.

Another difficulty in the structure of shoes has been in the nailing of the heel and in the subsequent working through of the nails as the outer layers of the heel lifts become worn. It has become customary to place some sort of a protection over the heel for this reason. In my invention however, I provide for a separate foot contacting sole overlying the skeleton sole construction which is built into the shoe when lasted.

It is thus the object of my present inven-

tion to provide a shoe with a nailless heel rest.

It is the further object of my invention to provide a shoe structure adapted to cope with the conditions first above set forth. To this end I provide a fastening member initially united by permanent fastenings to the upper together with various other features of construction which I will more fully set forth in the specification which follows.

In this specification and in the drawings which form a part thereof I shall describe and show a shoe structure embodying the principles of my invention and in this reference will be made to corresponding parts through the medium of like reference numerals.

In the drawings: Figure 1 is a longitudinal section of my shoe without the sole. Fig. 2 is a view of an unsewed shoe on the last, and Fig. 3 is a cross section on the line 3—3 Fig. 2.

1 is an upper to which is attached a lasting flap 4 which is attached by stitching 5 to the inside edge of the upper along the area of the ball portion. The flap is preferably formed of felt or other flexible material having cushioning properties.

2 is a shank and heel section and 3 is a toe section.

7 is an outer sole having the usual stitching channel, 7¹.

In building up the shoe the toe piece 3 and the heel and shank piece 2 are laid upon a last and the upper is lasted to these pieces 3 and 2 in the usual manner except that on the ball of the foot the flap 4 being already held to one side of the upper, has simply to be drawn across and be tacked or cemented to the opposite side of the upper. The outer sole 7 is then set on, the last removed and the shoe run on the horn of a McKay machine which will lay the stitching 6 in the channel 7 thus securing the outer sole, upper, and lasting flap all securely together. The interior of the inner sole 8 completes the interior finish of the shoe. It will be noted however that the lasting flap which is of flexible material does not materially stiffen the shoe along the ball thereof, but at the same time affords a cushion tread on the ball of the sole between the toe piece and the base of the shank. After the shoe has been stitched the inner sole 8 may be put in.

Various modifications in the structure of

the flap or pad 4 or in the manner of fasten-
ing the same or in the form or manner of
construction of the various parts may ob-
viously be made without departing from the
5 spirit of my invention if within the limits
of the appended claim.

What I therefore claim and desire to se-
cure by Letters Patent is:—

10 A shoe comprising an upper, a shank piece
and a toe piece, an interposed cushion piece
adapted to underlie the ball of the foot and

fill in the space between said shank piece
and said toe piece and an outer sole stitched
through and through to said upper, toe
piece, shank and to said interposed cushion 15
and an inner sole covering said stitching.

In testimony whereof, I affix my signa-
ture in presence of two witnesses.

JOHN FREDERICK DAVIS.

Witnesses:

ROBERT E. RANDALL,
H. R. ALDEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
