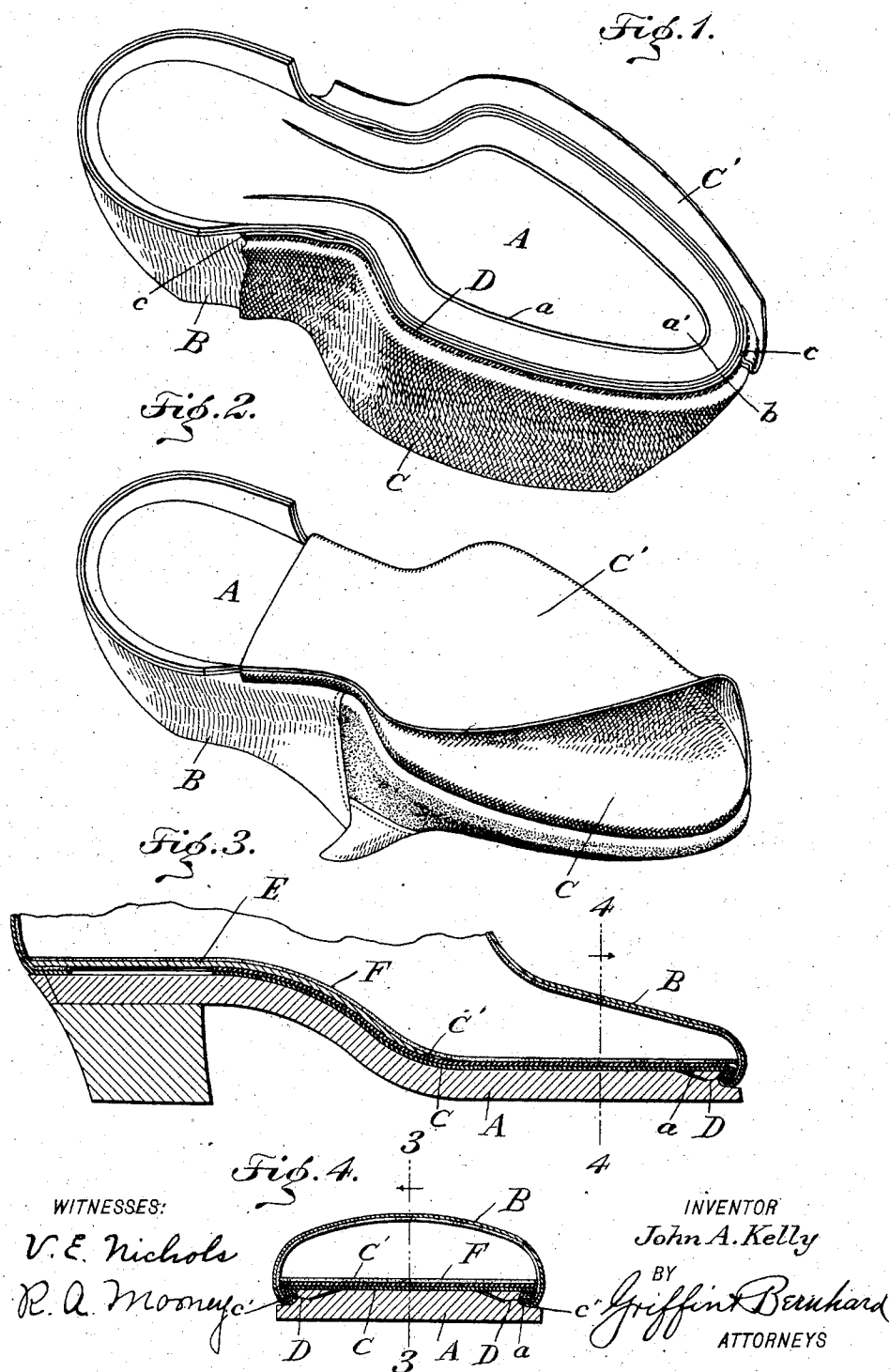


No. 854,361.

PATENTED MAY 21, 1907.

J. A. KELLY.
WET PROOF FOOTWEAR.
APPLICATION FILED DEC. 22, 1905.



UNITED STATES PATENT OFFICE.

JOHN A. KELLY, OF NEW YORK, N. Y.

WET-PROOF FOOTWEAR.

No. 854,361.

Specification of Letters Patent.

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Application filed December 22, 1905. Serial No. 292,951

To all whom it may concern:

Be it known that I, JOHN A. KELLY, a citizen of the United States, residing at New York, borough of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Wet-Proof Footwear, of which the following is a specification.

My invention relates, primarily, to an article of foot wear, wherein the seam between the upper and the sole is made impervious to moisture.

In one form of my invention I extend the water proof material over one side of the sole so as to render both the seam and the sole moisture proof.

In one embodiment of the invention the new shoe is designed to prevent water from soaking through the sole, and through the seam between the sole and the upper, thus keeping the foot of the wearer from becoming wet. The seam and the channeled part of the sole are also protected from the moisture which is liable to enter between the sole and the upper, thus preventing deterioration of the stitches, and said parts are, furthermore, inclosed and protected against the accession of dampness from the foot of the wearer.

The shoe may be said to belong to that class known as "turn" shoes, in the manufacture of which a channeled sole and an upper, turned wrong side out, are tacked, or otherwise temporarily attached, to a last, after which the sole and the upper are united by a row of stitches which pass through the channeled part of the sole and through the upper, near the edge thereof. It is usual to trim the edge of the upper, remove the last, and turn the upper so as to bring the right side outermost.

In the manufacture of the new moisture proof turn shoe, according to one embodiment of the invention, the upper and sole are lasted as usual and at this stage in the operation, the means for making the shoe waterproof are applied. Said means consist of one or a plurality of plies or layers of waterproof material, composed preferably of waterproof fabric, such as cloth coated with rubber, although this particular waterproof material is not essential. It is preferred to use two lengths or pieces of fabric, cut to the proper shape to cover the channeled surface of the sole, and it is also preferred to attach said lengths or pieces to the sole and the upper by

the same row of stitches which unite said upper and the sole, thus facilitating the operation of making the shoe. One length of fabric is turned over the sole and the edge of the upper at one side of the shoe, and then secured to the channeled surface of said sole, after which the other length of fabric is similarly turned or folded over the other edge of the sole and of the upper, said last mentioned length of fabric being secured to and upon the fabric first folded over the sole. Preferably, each layer of fabric covers the channeled part of the sole, from edge to edge thereof, and thus the whole bottom of the sole is covered by the waterproof material. These operations having been completed, the last is removed, the shoe is turned, and it is finished in the ordinary or any preferred way.

By attaching the waterproof material to the upper and the sole, and then folding the material over and upon the sole, according to one form of the invention, said material is made to inclose the seam, as well as the edge portions of said upper and the sole, and to cover the channeled surface of the sole. The entire bottom portion of the shoe is thus inclosed and protected from dampness, and thereby rendered moistureproof.

In the accompanying drawings, I have shown one form of my invention, wherein

Figure 1 is a perspective view illustrating the operation of lasting a shoe; Fig. 2 is a similar view representing another stage in the operation of lasting the shoe; Fig. 3 is a vertical longitudinal section through a shoe when completed, the plane of section being indicated by the dotted line 3—3 of Fig. 4; and Fig. 4 is a vertical cross-section on the line 4—4 of Fig. 3.

A designates a sole provided with the usual channel *a*, and B designates an upper. In the manufacture of the shoe the sole A and the upper B are temporarily attached by lasting tacks or other devices to an ordinary last. Previous to the step of sewing the upper and the sole together, two lengths or pieces of waterproof material C, C', are attached to the last on the respective sides thereof, so that the edge portions *c* of the waterproof material will lap the edge portion *b* of the upper and the edge *a'* of the sole.

The waterproof material may be of any suitable character, such as fabric coated or impregnated with rubber, but it will be un-

derstood that my invention is not restricted to the use of any particular moistureproof material.

The next step in the operation consists in uniting the edge portions of the sole, the upper and the waterproof material, and in practice this is done by sewing the parts together. The usual method is to unite the parts by a single row of stitches indicated at D, said stitches passing through the channeled portion *a* of the sole and the lapping edge portions of the upper and the waterproof material. The sewing needle passes through the channel *a* of the sole and the edge portions of the upper and waterproof material, the latter being folded back out of the path of said needle, substantially as indicated by Fig. 1.

It is preferred to make the waterproof material extend from the heel portion of the shoe along the shank and the bottom of the sole to and around the toe portion, and furthermore, each length or piece of waterproof material C, C', is of such shape and size as to extend entirely across the bottom portion and shank of the channeled sole.

The waterproof material having been united to the upper and sole, preferably by the stitching operation to produce the seam D, the next step is to fold the lengths of said material over the seam and the sole. It is preferred to fold the layer C over the channeled surface of the sole A, so as to inclose a part of the seam D, said layer C being cemented or otherwise united to the channeled surface of the sole. Said layer C covers the shank and the sole up to the toe portion of the shoe. The other length C' of waterproof material is now folded in the opposite direction and from the other side of the shoe, so as to overlap the layer C, substantially as represented by Fig. 2, and this length C' is cemented or otherwise united to and upon the layer C. Said length of material C' also covers the shank and the sole up to the toe portion thereof, and my new shoe is thus provided with two layers of waterproof material, one of which is united directly to the sole and the other layer is united to the first named layer. The two layers inclose the seam between the upper and the sole and they make the sole thoroughly waterproof, so that no water can soak through the sole or the seam to wet the foot, nor is the sole affected by the moisture or dampness from the foot of the wearer. After having folded the layers C, C', of material upon the sole, and cemented or otherwise fastened said layers in place, as described, the operator now proceeds to remove the last from the shoe and to turn the upper in a way to bring the other thereof outermost. The shoe is now finished in the usual or any preferred manner known to the art. For example, I may place within the shoe a shank E, and

the inner surface of the sole, as well as the shank, are covered by a fabric layer or "sock lining" F.

Although I have shown and described the lengths of material C, C', as arranged to cover the entire bottom surface of the sole, it will be understood that my invention is not strictly confined to this precise construction and arrangement, because I may provide two comparatively narrow strips of waterproof fabric adapted to be folded over the edge portion of the sole and the upper in the lasting operation and to be cemented, or otherwise attached, to the channeled surface of the sole, said length or lengths of material terminating at or near the channel *a*, for the purpose of protecting the seam D of the shoe. Furthermore, instead of making the lengths C' C', of waterproof material in separate pieces, the material may consist of a single piece of material having the desired shape and width.

It will be understood that subsequent to sewing the length or lengths of material C, C', to the upper and sole the edge portion of the upper and the waterproof material are trimmed in the usual way before folding the layers C, C', into overlapping relation to the channeled surface of the sole.

By reference to Figs. 3 and 4 it will be seen that the layers C, C', of waterproof material are folded at *c'* to inclose the stitches of the seam D at the respective sides of the shoe, and that the edge portion of the upper is imposed upon the channeled edge of the sole and the folded edge portions *c'* of the respective layers C, C', rest upon the folded edges of the upper. The folded edges *c'* of the waterproof material effectually prevent the admission of moisture to the edge portions of the channeled surface of the sole, as well as affording protection to the seam stitches.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. In a shoe, a sole, an upper, and a moisture-proof lining partially inclosing the edge portion of the sole and inclosing the edge of the upper, the same lining covering, also, one surface of the sole.

2. In a shoe, a channeled sole, an upper, and a moisture proof covering attached with the upper to the channeled edge of the sole, said covering being folded over the row of stitching and upon the channeled surface of said sole.

3. In a shoe, a channeled sole, an upper, and lengths of moisture proof material attached with the upper to the sole at the edges thereof, said lengths of material overlapping each other and the channeled surface of the sole.

4. In a shoe, a channeled sole, an upper, and lengths of moisture proof material attached with the upper to the sole at the edges

thereof, said lengths of material being folded upon the sole and inclosing the row of stitching between said upper and the sole.

5 In a shoe, a channeled sole, an upper and a moisture proof lining inclosing the joint between the upper and the sole and fastened upon the channeled surface of the sole.

10 6. In a shoe, a channeled sole, an upper, and a plurality of moisture proof layers fastened to the channeled surface of the sole and inclosing the stitches between the upper and the sole.

15 7. In a shoe, an upper, a sole, and lengths of moisture proof material attached to the edge portion of the sole and upper and folded upon said sole to inclose the stitches which unite the several parts.

8. In a shoe, an upper, a sole, and lengths

of moisture proof material attached to the 20 edge portion of the sole and upper and folded upon said sole to inclose the stitches which unite the several parts, said lengths of material being united to the sole and to each other.

9. In a shoe, a channeled sole, an upper 25 stitched thereto, and a moistureproof lining covering the upper surface of said sole and the channeled portions thereof, said lining inclosing the seam between said sole and the upper.

30 In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN A. KELLY.

Witnesses:

H. J. BERNHARD,
JAS. H. GRIFFIN.