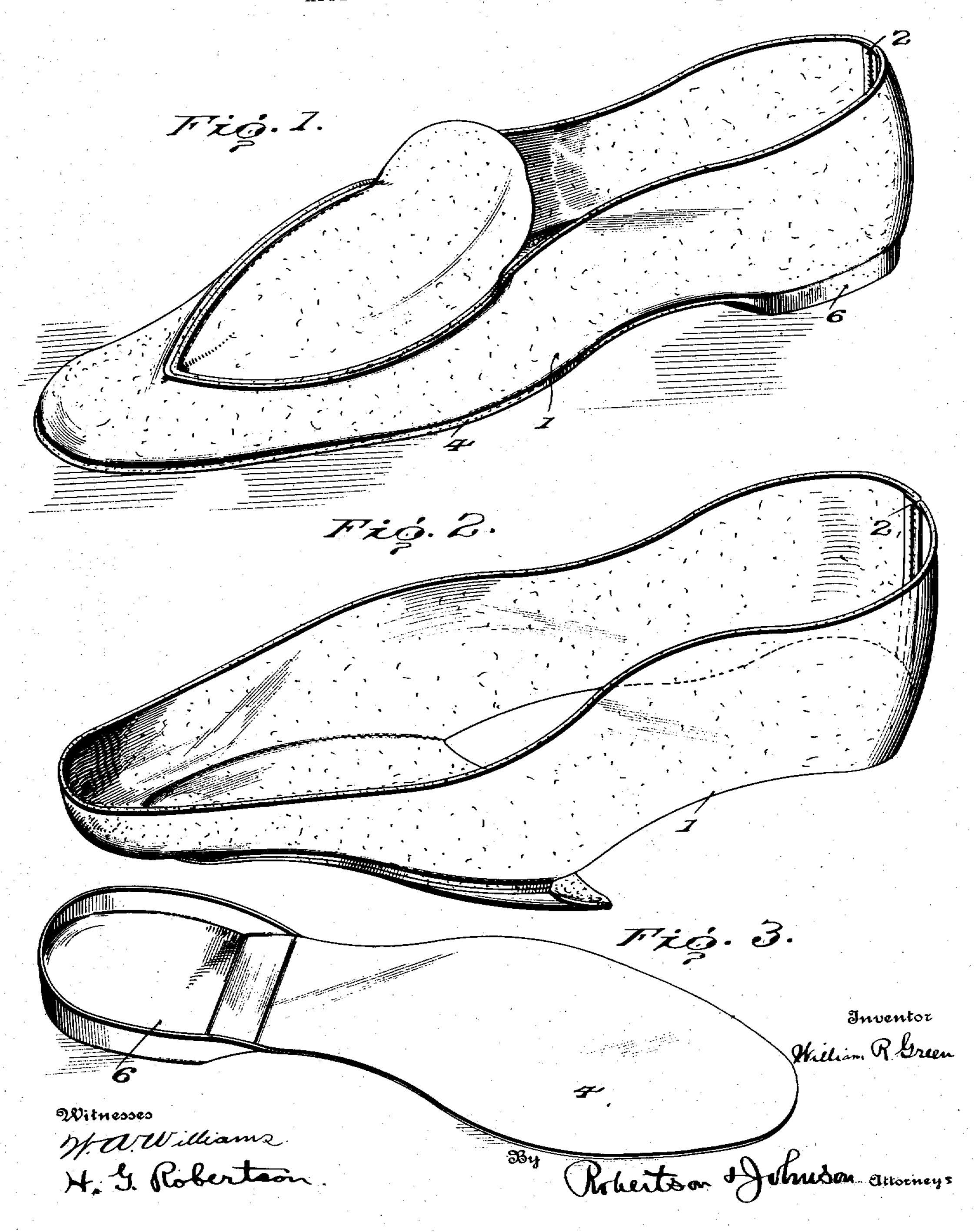
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SHOE AND PROCESS OF MAKING THE SAME.

APPLICATION FILED JULY 1, 1907.

2 SHEETS-SHEET 1.



No. 894,733.

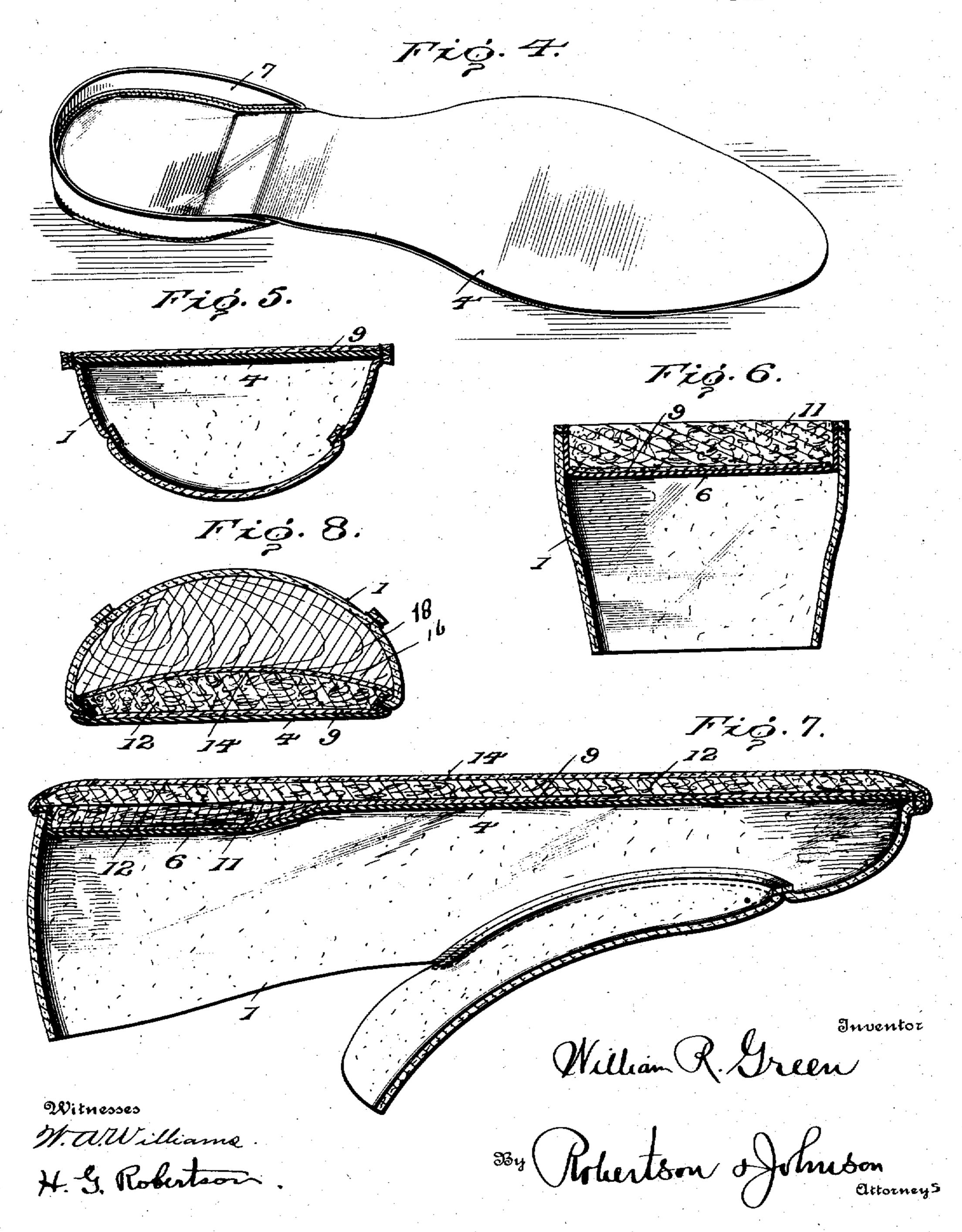
PATENTED JULY 28, 1908.

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2 SHEETS-SHEET 2.



UNITED STATES PATENT OFFICE.

WILLIAM RALPH GREEN, OF WHITE PLAINS, NEW YORK, ASSIGNOR TO DANIEL GREEN FELT SHOE COMPANY, OF DOLGEVILLE, NEW YORK, A CORPORATION OF NEW YORK.

SHOE AND PROCESS OF MAKING THE SAME.

No. 894,733.

Specification of Letters Patent.

Patented July 28, 1908.

Application filed July 1, 1907. Serial No. 381,756.

To all whom it may concern:

Be it known that I, William Ralph Green, of White Plains, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Shoes and Processes of Making the same, of which the following is a specification.

This invention relates to an improvement in felt shoes and more particularly to that class of shoe which is provided with a comparatively thin outer sole and with a cushioned in-sole, and the object of my invention is to provide a shoe of this character which may be molded to perfect shape and which will at the same time provide a soft or cushioned in-sole which will make the shoe exceedingly comfortable in wear.

My object is preferably accomplished by forming the shoe wrong side out and after it is turned placing it in a thoroughly wet condition on a hollow bottomed last and causing the felt upper to shrink in drying thus giving it an absolutely perfect shape and at the same time compelling the soft in-sole to project upward, and forming a soft cushion for the foot.

My invention therefore consists in a shoe having the characteristics just set forth and in the method of making the shoe, the invention being hereinafter more particularly described and then definitely set forth by claims at the end hereof.

In the drawings accompanying and form-35 ing a part hereof: Figure 1 is a perspective view of a felt slipper made in accordance with my invention. Fig. 2 is a perspective view of the upper, turned inside out, ready for the other parts of the shoe to be formed thereon. Fig. 3 is a perspective view of the outer sole, before being applied to the shoe, with a molded heel seat for the spring heel. Fig. 4 is a view of a sole with the heel seat formed by securing a welt to the sole. Fig. 45 5 is a view of the upper, wrong side out, with the outer sole and its felt filler sewed to the upper. Fig. 6 is a sectional view of the heel seat pressed inwardly and filled with a felt spring heel. Fig. 7 is a sectional view of the 50 shoe having the carded wool pad in position and covered by the felt in-sole, the shoe being

entirely complete except that it is wrong side out and has not been "formed". Fig. 8 is a sectional view of the shoe in the process of being "formed" or shrunk on its hollow 55 last.

Referring now to the details of the drawings by numerals: 1 designates the upper which is preferably formed of shrinkable material as felt and as shown in Fig. 2 it is illustrated as being ready for the other parts of the shoe to be secured to it, and for that purpose it is stitched at the rear end as indicated at 2.

The outer sole 4 of my shoe, in its pre- 65 ferred embediment, is shown in Fig. 3 and as there illustrated it comprises one piece of leather with a heel seat 6 molded for the reception of a felt spring heel which will be hereinafter referred to. Instead of having 70 the heel seat 6 molded integrally with the heel proper, I may form the seat as indicated in Fig. 4 where it will be seen that I employ a crescent shaped welt 7 which is stitched to the heel proper. Either of these construc- 75 tions for the heel may be employed but I prefer that shown in Fig. 3 and which will be illustrated in the other figures throughout the case. Before this sole and its integral heel seat are secured to the upper I cement to 80 its interior surface a thin felt filler 9 and subsequently the sole with its integral heel seat and the felt filler attached, are stitched to the upper 1 as indicated in Fig. 5, the upper and sole being, it will be remembered, wrong side 85 out, and therefore the felt filler will be exposed as illustrated in Fig. 5. After this is sewed in position the heel seat 6 is pressed downward as indicated in Fig. 6 so that the heel seat will project inward into the shoe 90 thus forming an aperture to receive the wadding 11 forming the spring heel. This spring heel I prefer to form of felt which is cemented in place and is shown in Fig. 6. After this operation is through, I place over 95 the heel and the entire exposed portion of the felt filler 9 a carded wool pad designated by the number 12 and then the felt in-sole 14 is stitched, preferably by hand, to the edge of the upper so as to completely cover the 10 carded wool pad and the spring heel 11. This is illustrated in Fig. 7 and as there seen

it will be noticed that the felt in-sole is substantially flat since the spring heel is projected upwardly into the shoe. The process of manufacturing the shoe is now finished 5 except for turning and "forming". In order to easily turn the shoe the upper is slightly dampened and then it is turned right side out. After this is done the complete upper, but not the sole and its connected parts, is 10 immersed in water and then a last designated 16, with a hollow bottom as indicated at 18, is inserted in the wet shoe and the wet felt, in the process of drying shrinks to such an extent as to cause the inner sole with its wool 15 pad to project into the hollow bottom 18 of the last 16.

It will be understood that in the process of shrinking the only part that is shrunk is the felt upper and as this shrinks it draws the 20 outer sole 4 as taut as it can and the only way for this outer sole to straighten by stretching is by forcing the soft carded wool pad 12 into the hollow of the last which is specially formed for this purpose. After the 25 shoe is thoroughly dry, the last is removed and the shoe will be found to be in absolutely perfect shape, the felt having shrunk and conformed absolutely to the shape of the last, the sole being substantially flat, and the 30 inner sole being slightly elevated on the interior thus forming a soft and easy cushion for the sole of the foot.

What I claim as new is:

1. The process of manufacturing shoes which consists in securing or attaching an upper of highly shrinkable material to a sole of a relatively less shrinkable material, dampening or wetting the upper, placing the shoe upon a form, and permitting the upper to shrink whereby the upper is shrunk to form and the sole is stretched.

2. The process of manufacturing shoes which consists in forming a shoe with a padded sole, dampening a part of the shoe and shrinking the same upon a hollow bottomed last, the shrinking causing the shoe to conform to the shape of the last and the padded part of the sole to project upward into the hollow last.

3. The process of manufacturing shoes which consists in securing a shrinkable upper to a padded sole, dampening the shrinkable upper, and shrinking the same upon a hollow bottomed last the shrinking causing the shrinkable upper to conform to the shape of the last and the padded part of the sole to

project upward into the hollow of the last.

4. The process of manufacturing shoes which consists in securing a shrinkable upper to an outer sole, inserting a filling or padding in said sole, dampening the shrinkable upper, and shrinking the same upon a hollow bottomed last the shrinking causing the shrinkable upper to conform to the shape of the

last and the padded part of the sole to pro- 65 ject upward into the hollow of the last.

5. The process of manufacturing shoes which consists in securing a shrinkable upper to an outer sole, inserting a filling or padding in said sole, securing an inner sole over said 70 padding, dampening the upper, and shrinking the same upon a hollow bottomed last the shrinking causing the shrinkable upper to conform to the shape of the last and the padded part of the sole to project upward 75 into the hollow of the last.

6. The process of manufacturing shoes which consists in securing an upper of highly shrinkable material to an outer sole of relatively less shrinkable material, both being 80 wrong side out, placing a padding or filling on said outer sole, turning the shoe right side out, dampening or wetting the upper, placing the shoe upon a last, and permitting the upper to shrink whereby the upper is shrunk 85

to form and the sole is stretched.

7. The process of manufacturing shoes which consists in securing an upper of highly shrinkable material to an outer sole of relatively less shrinkable material, both being wrong side out, placing a padding or filling on said outer sole, securing an inner sole over said pad, turning the shoe right side out, dampening or wetting the upper only, placing the shoe upon a last, and permitting the wet upper to shrink on the last whereby the upper is shrunk to form and the sole is stretched.

8. The process of manufacturing shoes which consists in securing a shrinkable upper 100 to an outer sole, both being wrong side out, placing a pad on said outer sole, securing an inner sole over said pad, turning the shoe right side out, and shrinking the same upon a hollow bottomed last thereby causing the 105 upper to conform to the shape of the last and the soft filling and inner sole to project upward into the hollow of the last.

9. The process of manufacturing shoes which consists in securing a shrinkable upper to an outer sole, both being wrong side out, inserting a heel pad in a heel seat, placing a pad on the sole, securing an inner sole over said pad, turning the shoe right side out, and shrinking the same upon a hollow bottomed last thereby causing the upper to conform to the shape of the last and the soft filling and inner sole to project upward into the hollow of the last.

10. The process of manufacturing shoes 120 which consists in attaching a welt to the heel part of an outer sole, thus forming a heel seat, attaching said sole and said welt to a shrinkable upper, both being wrong side out, placing a heel pad in said heel seat, placing a pad over, said outer sole, turning the shoe right side out, and shrinking the same upon a hollow bottomed last thereby causing the upper

to conform to the shape of the last and the soft filling and inner sole to project upward into the hollow of the last.

11. As a new article of manufacture, a shoe comprising a shrunk upper of highly shrinkable material and a stretched sole of relatively less shrinkable material.

Signed by me at 119 West 23rd st. New York city.

WILLIAM RALPH GREEN.

Witnesses:

OSCAR BRANDT, ANNA ELIZABETH GREEN.

DISCLAIMER.

894,733.— William Ralph Green, White Plains, N. Y., Shoe and Process of Making Same. Patent dated July 28, 1908. Disclaimer filed January 7, 1914, by the assignee, Daniel Green Felt Shoe Company.

Enters this disclaimer—

"To the subject-matter of claim 11 of said Letters Patent, except when the sole has been stretched taut by the upper and is combined with a therefrom upwardly projecting cushioned in-sole, substantially as described."

Official Gazette, January 13, 1914.

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