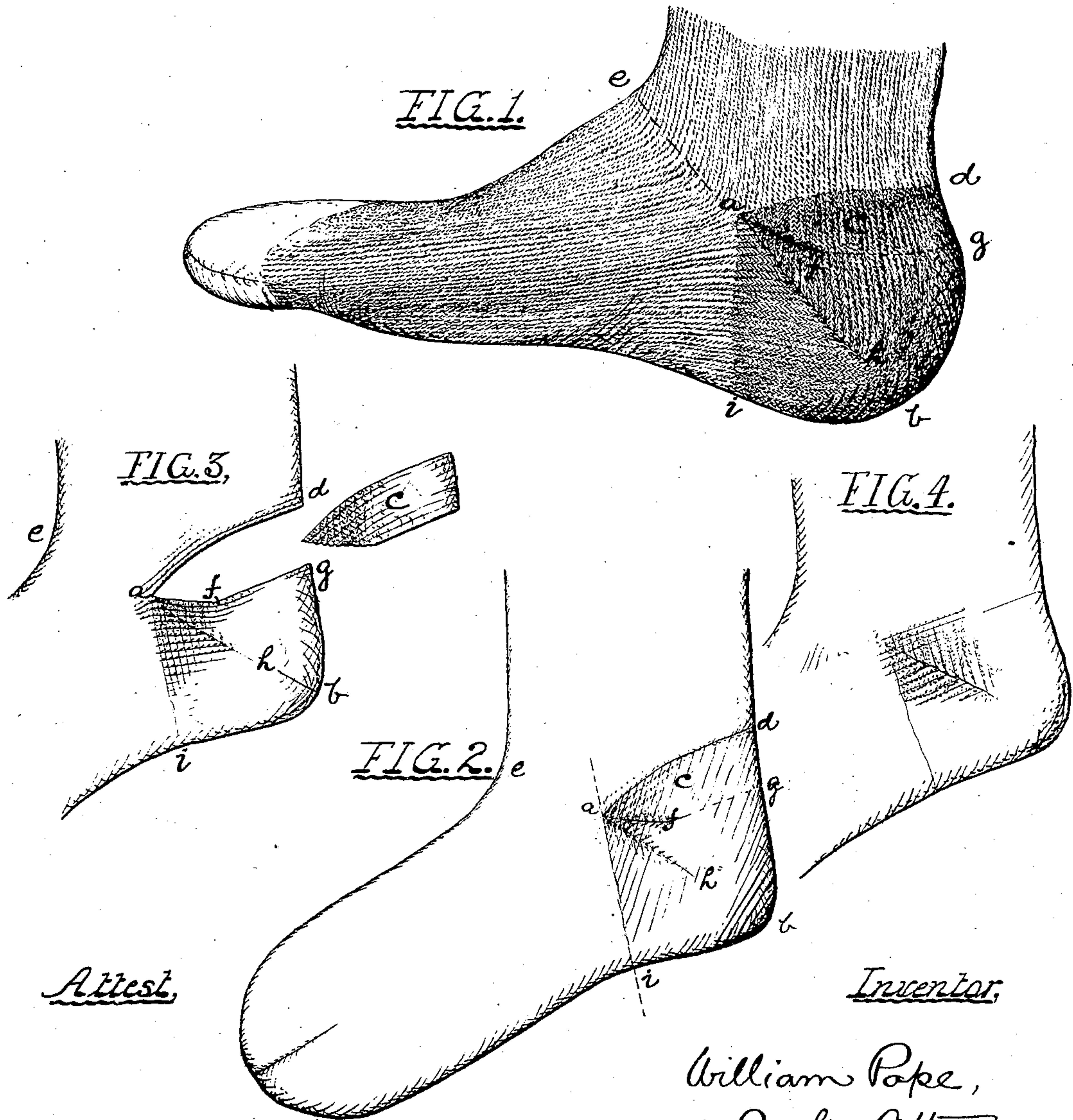


W. POPE.
 Stocking and Method of Manufacturing the same.
 No. 226,878. Patented April 27, 1880.



Attest,

Henry Edwards
 John Doleys

Inventor,

William Pope,
 By his Attorneys;
 W. C. Brewster,
 Bonsall Taylor

UNITED STATES PATENT OFFICE.

WILLIAM POPE, OF BUCYRUS, OHIO.

STOCKING AND METHOD OF MANUFACTURING THE SAME.

SPECIFICATION forming part of Letters Patent No. 226,878, dated April 27, 1880.

Application filed December 24, 1879.

To all whom it may concern:

Be it known that I, WILLIAM POPE, of Bucyrus, Ohio, have invented an Improvement in Stockings and in the Methods of Manufacturing the Same, of which the following is a full, clear, and true description, reference being had to the accompanying drawings, forming part hereof, in which—

Figure 1 is a perspective view of a machine-knit stocking constructed according to my invention as the same appears upon the foot; Fig. 2, a side view of a similar stocking folded flat; Fig. 3, an illustrative detail, showing removed the wedge-shaped addition which constitutes my invention; Fig. 4, a side view of the old form of stocking.

Similar letters of reference indicate corresponding parts.

My invention relates to knitted stockings made on knitting-machines, whether circular or straight, and its object is to form the upper back portion of the heel of the stocking in a more durable manner than has heretofore been done, and at the same time to insure a better shape to the stocking.

It has long been the practice to knit the heels and toes of stockings of thicker yarn than is employed for the leg and foot portion, and a method largely employed in machine-knitting for shaping the heels and toes, and of which I sometimes make use in the practice of this invention, was patented to William H. McNary in and by Letters Patent No. 16,285, dated December 23, 1856, to which Letters Patent reference is to be made for the better understanding of a convenient method whereby a stocking embodying my invention can be produced.

In the production of heels, however, whether of thicker material or of material of the same thickness as the other portions, the heel portion has heretofore occupied in the flattened-out stocking an equal area on both sides of a diagonal line, *a b*, laid from the center of the bulge of the heel to about the center of the curve of the upper instep, where it joins the leg, as represented in Fig. 4. While the area of this heel portion has varied by greater or less extension on the heel and sole, the quadrant portions have been equal, with the result, however, that the shape of the stocking has been

bad, the angle of the foot and leg being too sharp and the tension at the back of the heel, where the heel portion joins the leg, too great.

In use that portion of the back of the heel of the stocking which comes opposite the upper portion of the quarter of the shoe, where the heel-stiffener ends, wears out the most speedily, whereas the sole portion, at an equal distance from the diagonal referred to, does not so easily wear, and is best made short or of less longitudinal extent of thickened material than the corresponding portion of the heel.

With the object, therefore, of producing a stocking combining the requirements of a greater extent of material on the heel where it joins the leg, and a less extent on the sole, I have devised a stocking in which the areas on either side of the diagonal are unequal, that on the heel being of greater extent than that on the sole, and this I accomplish by knitting in a double wedge-shaped portion similar to that represented by *c* in the drawings, which portion is best made of extent sufficient to come, when on the foot, above the line of termination of the quarter and heel-stiffener, employing in connection therewith a less extent upon the sole portion, or an extent equal to that which is formed on the heel without the addition of the portion *c*, the result whereof is, that the tension of the material in the region of the upper back portion of the heel is lessened and more fullness at said portion insured, whereby a better shape and more durability is insured to the back of the stocking.

I do not desire to limit myself to any one method of knitting in the wedge-shaped portion referred to, as the same may be done by various methods. In practice, however, I find the following to be a convenient method: The fabric which forms the leg is knit in tubular form upon a circular machine with all the needles in action as far down as the line *e a d*; Figs. 1 and 3. The requisite number of needles from *a* to *e* (on both sides, of course) are then drawn out of action, retaining, however, their loops, and the knitting then continued once or twice around from *a* to *d*, (on both sides.) The needles nearest *a* on both sides are then drawn by ones or twos out of action, and the material gradually narrowed down along the line *a f*, whereby the portion *c* is produced.

All the needles on the line *a f g* are then placed into action for one or two throws of the machine, and then the narrowing is again commenced, and continued down the line *a b* as far, for instance, as from *a* to *h*. The needles are then gradually returned into action, so as to widen back again from *h* to *a* until the portion *a b i* is produced, after which all the needles along the line *e a i*, on both sides, are placed into action and the tubular portion of the foot knit, the toe being knit in in any of the usual methods.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The mode of forming a knitted stocking which consists in knitting the leg portion, knitting to the extremity thereof a triangular

wedge-shaped piece of fabric, and finally knitting to said wedge-shaped piece the heel and foot of the stocking, substantially as shown and described.

2. As a new article of manufacture, a stocking having the leg, heel, and foot portions thereof of the ordinary form, and having a triangular wedge-shaped piece of fabric knitted between the leg and heel portions thereof, substantially as shown and described.

In testimony whereof I have hereunto signed my name this 19th day of December, A. D. 1879.

WM. POPE.

In presence of—

J. BONSALE TAYLOR,
W. C. STRAWBRIDGE.