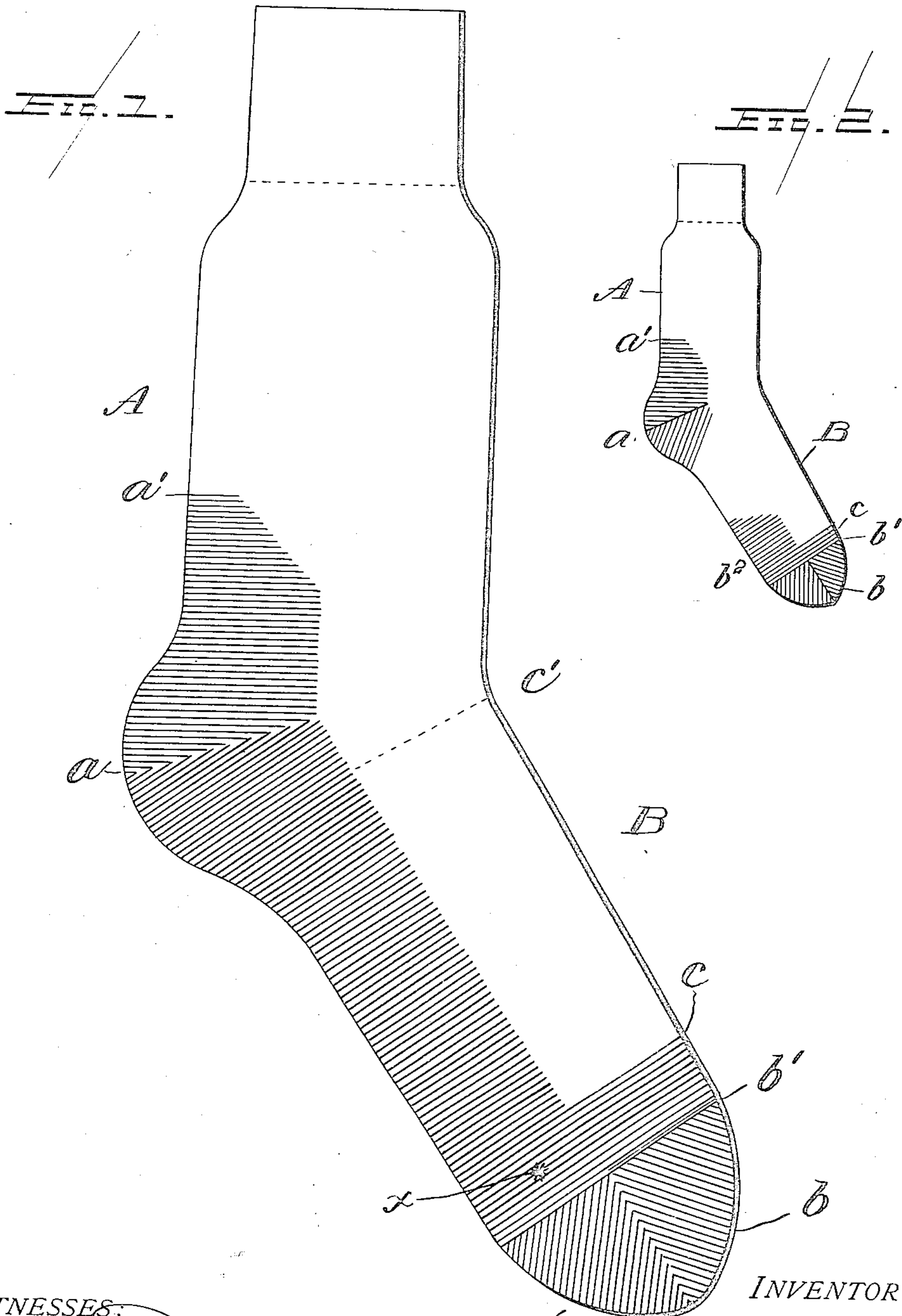


No. 862,575.

PATENTED AUG. 6, 1907.

J. W. METTLER.
SEAMLESS HOSIERY.
APPLICATION FILED FEB. 16, 1906.



WITNESSES:

W. F. Kagle.
J. K. Moore

INVENTOR

John Wyckoff Mettler

BY

Walter D. Brown

Attorneys

UNITED STATES PATENT OFFICE.

JOHN WYCKOFF METTLER, OF EAST MILLSTONE, NEW JERSEY, ASSIGNOR TO INTERWOVEN STOCKING COMPANY, OF NEW BRUNSWICK, NEW JERSEY, A CORPORATION OF NEW JERSEY.

SEAMLESS HOSIERY.

No. 862,575.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed February 16, 1906. Serial No. 301,494.

To all whom it may concern:

Be it known that I, JOHN WYCKOFF METTLER, a citizen of the United States, residing at East Millstone, in the county of Somerset and State of New Jersey, have
5 invented certain new and useful Improvements in Seamless Hosiery; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

10 My present invention relates to the class of seamless hosiery and has for its object the production of an improved article of the class named.

It is desirable to have articles of differing weight for winter and summer wear. In making stockings of
15 very light weight for use in the hottest weather, it is found that the machine looping or stitching for joining the parts near the toe is more apparent and is felt by the wearer to a much greater degree than in the thicker makes of stockings. In making such stockings it is
20 common to throw in a thicker thread for the heel and toe and to throw in an additional thread in the back of the ankle and bottom of the foot to give additional durability and strength in these parts of the stocking. In some cases instead of making the heel and toe of a
25 stronger thread an additional or splicing thread is knit through the parts of the stocking to be strengthened including the heel and toe. In all of these cases, there is a disparity between the strength of the loops on one side of the joining at the toe and those on the
30 other side of the same. It is found that when subjected to wear, these weaker loops are liable to give way after little use and this constitutes a weak point in the stocking. I overcome this objection by the construction shown in the drawing.

35 In the drawing, Figure 1 is a view of my preferred form of stocking and Fig. 2 is a view on a reduced scale of a modified construction.

In the drawing A is the leg and B the foot of the stocking and *a* is the heel and *b* the toe. In this case
40 the shaded portion indicates the parts in which a splicing or strengthening thread is introduced. Such thread being inserted in the back of the ankle beginning at *a'* and continued through the heel, bottom of the foot to the point *c* at which point, it is knitted with
45 the main thread entirely around the tubular web until the point of joining *b'* is reached. The additional thread is then knit into the toe and the opposite courses of loops for the joining made of equal strength and weight.

50 The operation just described is that followed where the main thread or the thread used in the leg is also knit through heel and toe. In case the heel and toe are knit of a separate heavier thread, or of two or more

separate threads, such thread or threads may be knit either entirely around the web from *c* to *b'* or may be
55 knit only upon the top of the foot of the stocking between the same points. In case the said thread or threads are used solely upon the top of the stocking the bottom of the foot and top between *c* and *b'* may be knit in the manner set forth in the patent to E. E.
60 Kilbourn No. 669,530, March 12, 1901, the bottom and top threads being inter-knit for two or more needles at each side of the foot of the stocking. It will also be seen that when a thicker or heavier thread is used for the heel and toe, the stocking may be reinforced at the
65 ankle beginning at *a'* and continuing to the heel; the heel then knit with the heavier thread; the foot then knit and the bottom reinforced as at the ankle and the thicker thread again knit from the point *c* to *b'* and through the toe.
70

In some cases the heel and toe may be knit with the heavier thread without reinforcing the bottom of the foot. In such case either the heavier thread will be knit entirely around the foot of the stocking before
75 reaching the point *b'* or a splicing thread thrown in for the same distance. Instead of doing this a splicing thread may be thrown in only across the top of the stocking for the same space, or the heavier thread may be knit only across the top of the foot of the stocking as already stated in the manner described in the pat-
80 ent referred to. I may also knit the stocking with the heavier thread for the heel and toe without any reinforcing thread until the point *c* is reached and then the web be reinforced from *c* to *b'* by an additional thread all round the web, or only across the top of the foot of
85 the stocking, or the reinforcing may be made to extend more than half way around the foot to about the point indicated in the drawing by the star *x*.

As the central portion of the bottom of the foot is not subjected to great wear, there is a saving in material
90 to make this part of the stocking of the same weight as the leg of the stocking, but have the bottom of the foot reinforced at the heel and for a space adjacent to the toe, as shown at *b²*, Fig. 2, so as to provide additional durability at the heel and beneath the ball of
95 the foot of the wearer.

In some cases I may prefer to cause the additional or splicing thread to be knitted around the entire tubular web for a greater distance than from *c* to *b'* beginning
100 at the point *c* or at any preferred point between *c'* and *c*, thus forming a double footed stocking. The stocking might also be constructed by employing for the stocking from the heel or the point *c* the same thread or threads that are used in knitting the heel.

While I have described the stocking as having the
105 joining on the top of the foot of the same, and while

this is the usual way in which seamless stockings are made, it is obvious that the principle of my invention would apply with equal force and advantage to stockings in which the joining was on the under side of the foot.

What I claim and desire to secure by Letters Patent is:—

1. A seamless stocking having a toe of greater weight than the main body of the stocking, the said stocking also having the top of the foot of the same adjacent to the joining at the toe reinforced, substantially as described.

2. A light weight seamless stocking having a toe portion of greater weight and also having the foot of the stocking adjacent to the point of joining at the toe made of substantially the same weight as the toe of the stocking, substantially as described.

3. A light weight seamless stocking having a toe of greater weight than the main body of the stocking and also having the back of the ankle, bottom of the foot and

top of the foot adjacent to the joining at the toe reinforced, substantially as described.

4. A light weight seamless stocking having a toe of greater weight than the main body of the stocking and also having the portion of the bottom of the foot adjacent to the toe and the part of the top adjacent to the joining of substantially the same weight as the toe of the stocking, substantially as described.

5. A seamless stocking having a toe of greater weight than the main body of the stocking and also having the top of the foot of the stocking adjacent to the joining of substantially the same weight as the toe, said portion of increased weight extending a greater distance around the foot than the joining seam, substantially as described.

In testimony whereof I affix my signature, in the presence of two witnesses.

JOHN WYCKOFF METTLER.

Witnesses:

IRVING HOAGLAND,
J. H. WHITAKER.