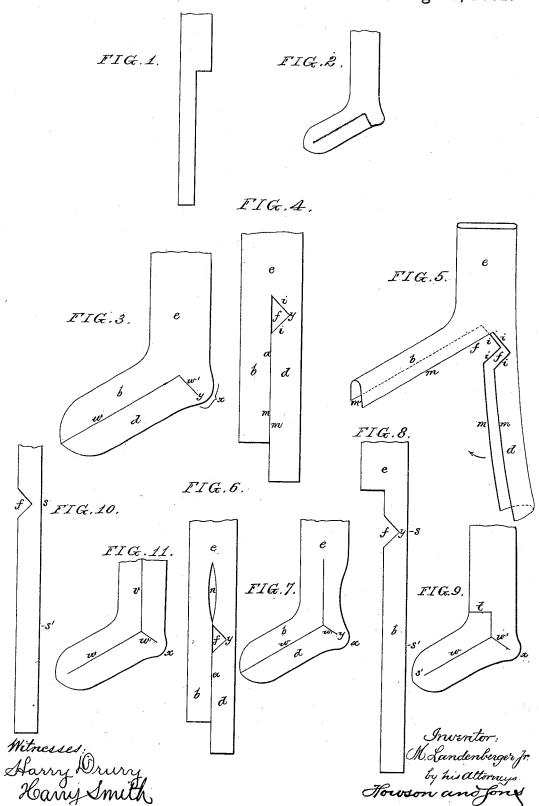
## M. LANDENBERGER, Jr.

STOCKING.

No. 263,539.

Patented Aug. 29, 1882.



## UNITED STATES PATENT OFFICE.

MARTIN LANDENBERGER, JR., OF PHILADELPHIA, PENNSYLVANIA.

## STOCKING.

SPECIFICATION forming part of Letters Patent No. 263,539, dated August 29, 1882.

Application filed March 15, 1882. (No model.)

To all whom it may concern:

Beitknownthatl, MARTIN LANDENBERGER, Jr., a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Socks and Stockings, and in the mode of making same, of which the following is a specification.

My invention relates to certain improvements in that class of cheap socks and stockings which are known to the trade by the term "cut hose;" and the main object of my invention is to make such a sock or stocking without the usual seam in the bottom of the heel, a further object being to give the proper shape to the ankle portion of the stocking. These objects I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawings, in which—

Figures 1 and 2 are diagrams showing the usual plan of making the foot and heel of cut hose; Fig. 3, a side view of part of a stocking made in accordance with my invention; Fig. 4, a view showing the method of cutting the blank for the same from a tube of knitted fabric; Fig. 5, a perspective view of the blank prior to being folded and seamed; Figs. 6 and 7, views illustrating the mode of shaping the ankle, and Figs. 8 to 11 views of modifications of the invention.

The ordinary way of making the foot and heel on stockings of the class to which my invention relates is to first cut from a tube of knitted fabric a blank such as shown in Fig. 1 of the drawings, and then to fold and seam this blank, as shown in Fig. 2, the result being objectionable seams in the bottom of the heel. This objection I overcome by my invention, and produce a stocking of the character shown in Fig. 3, having a rounded heel, x, free from seams on the bottom, the only seams being those at the sides of the foot and heel.

In carrying out the invention I cut from the knitted tube a blank such as shown in Fig. 4, this blank having at the lower end a central longitudinal incision, a, forming semi-tubular projections b and d, the latter of which is somewhat longer than the former, and has formed in its inner edges and adjacent to the tubular upper portion, e, of the blank triangular opensor ings f. (See Fig. 5.) When this blank is folded in the direction of the arrow, Fig. 5, the projection before the former than the former than the first and the first and the projection before the former than the first and the first and the projection before the first and the

the projection d forms the bottom of the foot and the heel, the openings f being closed by uniting the edges i of the same, and the edges 55 m m of the projections b and d being united by sewing, so as to form the seam w at each side of the foot and the seam w' at each side of the heel, the latter seam, however, terminating some distance from the bottom of the 60 heel, which consists of but a single thickness, y, of fabric, as shown in Fig. 3. The side seams, w w, are curved at the toe, so as to unite and produce the desired rounded shape of the toe, as usual.

When it is desired to shape the ankle portion of the stocking I form in the tubular portion e of the blank which is to form the ankle a central opening, n, Fig. 6, tapering from the middle to the ends, the width of this opening 70 and its general configuration depending upon the desired shape of the ankle portion of the stocking. The opposite edges of the opening on both sides of the ankle are united in completing the stocking, so as to contract the diameter of the lower portion of the tube, as shown in Fig. 7.

In Figs. 8 and 9 I have shown a modification of my invention, in which the tubular portion e of the blank has but a single projection, 80 which is folded at s to form the heel and again at s' to form the toe, an additional seam in this case being necessary at t.

In Figs. 10 and 11 is shown another modification, in which the blank is semi-tubular 85 throughout, this blank being also folded at the two points s and s', and the stocking having at each side of the leg a vertical seam, v, forming a continuation of the side seam of the foot. On the same plan a stocking may be 90 made of two semi-tubular pieces, one forming the rear portion of the leg, the heel, and the bottom of the foot, and the other forming the top portion of the foot and the front portion of the leg, the two pieces being united at the 95 toe and being otherwise seamed, as in Fig. 11.

It will be evident, also, that that portion of my invention which relates to the shaping of the ankle can be applied to the stockings shown in Figs. 8, 9, 10, and 11, as well as to those 100 shown in Figs. 3, 4, 5, and 6.

ings f. (See Fig. 5.) When this blank is | I claim as my invention—folded in the direction of the arrow, Fig. 5, | 1. A sock or stocking having side seams w the projection b forms the top of the foot and | on the foot and side seams w' at the heel,

the bottom of the heel being without seams, as set forth.

2. The mode herein described of making on a cut stocking a heel having a seamless bottom, said mode consisting in providing the rear portion of the leg with a semi-tubular projection, d, and then folding said projection and uniting the edges i i of triangular openings formed therein, as set forth.

3. The mode described of forming a foot and heel on a cut stocking, said mode consisting in providing the tubular leg with semi-tubular projections b and d, folding the projections, as described, and sewing together the edges m m to f the projections and the edges i i of trian-

gular openings f, formed in the projection d, as set forth.

4. The mode described of shaping the ankle of a sock or stocking, said mode consisting in forming a tapering recess in each side of the 20 tubular leg, and then uniting the edges of these recessed portions to contract the diameter of the tube, as specified.

In testimony whereof I have signed my name to this specification in the presence of 25 two subscribing witnesses.

MARTÍN LANDENBERGER, JR.

Witnesses:

263,539

HARRY DRURY, HARRY SMITH.