

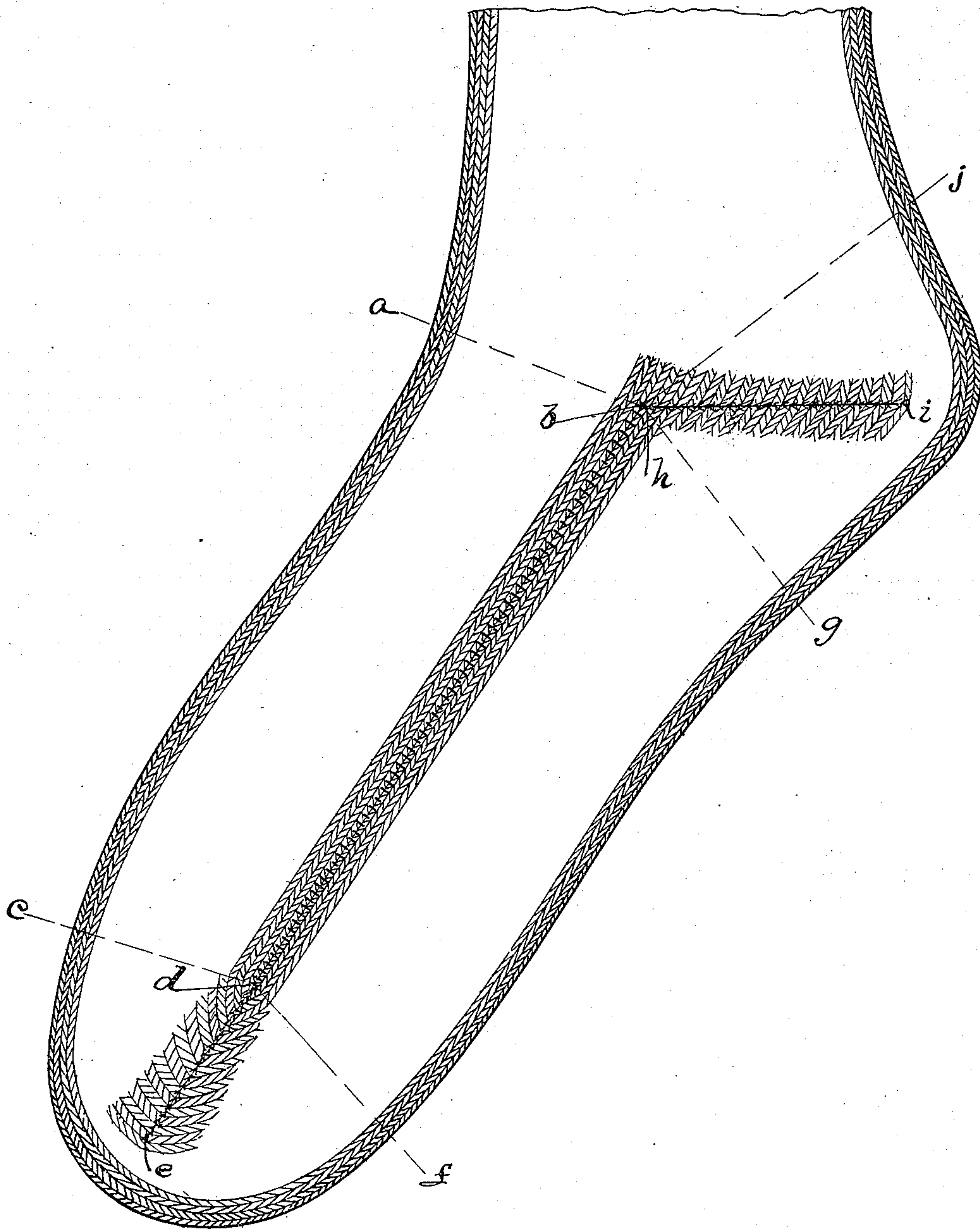
(Specimens.)

H. B. QUINBY & T. C. CLOW.

ART OF MANUFACTURING STOCKINGS AND HOSE.

No. 355,790.

Patented Jan. 11, 1887.



Witnesses

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# UNITED STATES PATENT OFFICE.

HENRY B. QUINBY AND THOMAS C. CLOW, OF LAKE VILLAGE, N. H.

## ART OF MANUFACTURING STOCKINGS AND HOSE.

SPECIFICATION forming part of Letters Patent No. 355,790, dated January 11, 1887.

Application filed August 31, 1886. Serial No. 212,324. (Specimens.)

*To all whom it may concern:*

Be it known that we, HENRY B. QUINBY and THOMAS C. CLOW, citizens of the United States, residing in Lake Village, in the county of Belknap and State of New Hampshire, have invented an Improved Art of Manufacturing Stockings and Hose; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, which represents a side view of the foot and part of the leg of a stocking knit by our improved process.

We knit hosiery by our art or method upon any circular-knitting machine which is constructed and adapted also to knit a flat web with a part of its needles and to narrow and widen such flat web.

Our art or method is as follows: We first raise or move one half of the needles out of action. We then proceed with the other half of the needles to knit a flat web of sufficient length and width to form the upper part of the foot of the stocking or hose. We then narrow, to shape the toe of the stocking or hose, and again widen, joining the widened edges of the web to the narrowed edges thereof at the same time, in the manner well known to those skilled in the art. We then knit another portion of flat web to form the bottom of the foot. Then we narrow and widen again to shape the heel of the stocking or hose in the same way as for the toe thereof. We then lower or bring into action the half of the needles which were raised out of action at the start and pick the first end of the knit web thereon. Then we proceed to knit a circular web with all of the needles, until the leg of the stocking or hose is formed.

Referring to the drawing, to illustrate the above-described method of knitting, it will be seen that we start at the instep of the stocking or hose, at the line *a b*. The upper part of the foot-web is then knit to the upper toe-line, *c d*. The toe-web is then narrowed from the point *d* down to the point *e*, and then widened back to the same point, joining the upper and lower parts of this web on the line *c d* at both edges of the web in the act of widening. Then the bottom part of the foot-web is knit from the lower toe-line, *d f*, to the line *g h*. Then the heel-web is narrowed from the point *h* to the point *i*, and then widened again back to the same point, joining the front and rear parts

of the web on the line *i h* at both edges in the act of widening the heel-web, ending at the line *h j*. Then the needles out of action are brought down and the first end, *a b*, of the web is picked upon them, bringing the points *b* and *h* together. Now the whole web on the line from *a* to *j* is continued in a circular web to form the leg of the stocking or hose.

The stocking or hose thus knit is full-fashioned, and all that remains to be done to form it is to sew together or otherwise unite the selvage edges of the upper and lower parts of the foot-web from the point *d* to the point *h* on each side of the stocking or hose. There are no raw edges to join, and no seam is formed in the hosiery. The whole knitting is done on one machine in the simplest manner, and thus a good-fashioned article of hosiery is made in the cheapest manner.

It is obvious that the knitting of the flat web to form the heel, foot, and toe part may be reversed in order, with the same result and a mere modification of the process—thus, beginning at the line *h j*, first forming the heel part by narrowing and widening, then knitting the lower part of the foot-web from *g h* to *d f*, then forming the toe part by narrowing and widening, then knitting the upper part of the foot-web from *c d* to *a b*, and finally picking the end *h j* upon the other needles, and then knitting the leg-web as before.

We claim as our invention—

The art or method of knitting hosiery which consists in knitting upon half of the needles of a circular-knitting machine a flat web to form the upper part of the foot of the stocking or hose, then narrowing and again widening the web to form the toe part, then knitting a flat web to form the lower part of the foot, then narrowing and again widening to form the heel part, then picking the first end of the web upon the remaining needles of the machine and knitting a circular web to form the leg of the stocking or hose, and finally uniting the side edges of the upper and lower parts of the foot by seaming or stitching, substantially as and for the purpose herein set forth.

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