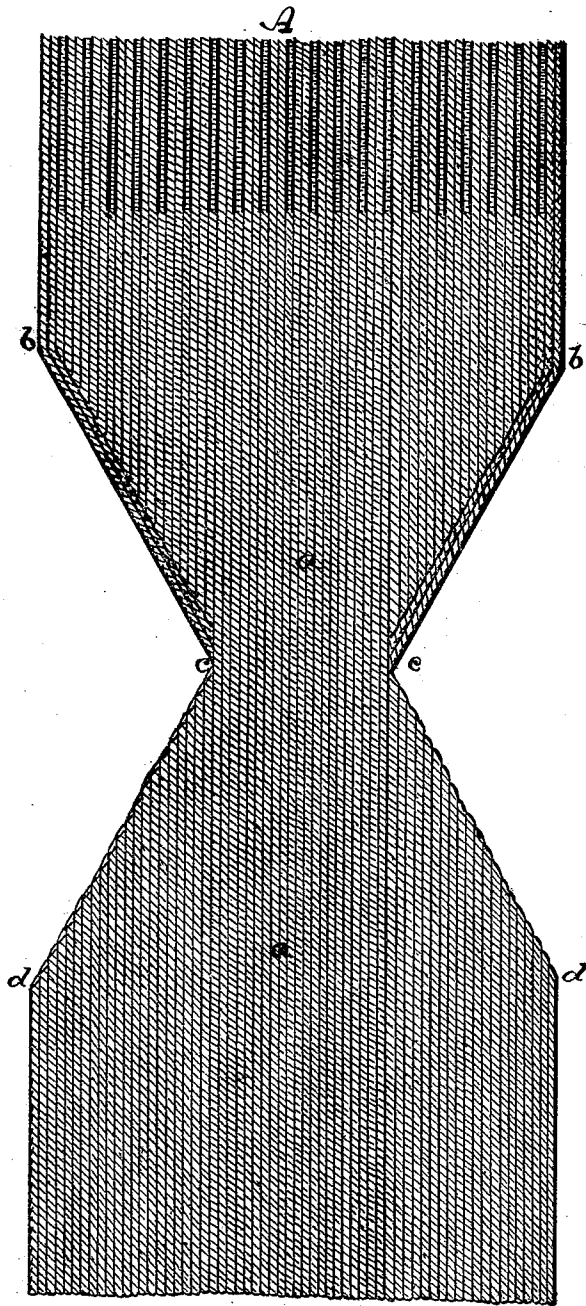


W. H. ABEL.

METHOD OF FORMING THE FEET OF STOCKINGS.

No. 180,446.

Patented Aug. 1, 1876.



WITNESSES

Chas. M. Gallenper
R. D. Smith

By

INVENTOR,
William H. Abel,
J. S. Brown,
his Attorney

UNITED STATES PATENT OFFICE.

WILLIAM H. ABEL, OF BRISTOL, NEW HAMPSHIRE.

IMPROVEMENT IN METHODS OF FORMING THE FEET OF STOCKINGS.

Specification forming part of Letters Patent No. **180,446**, dated August 1, 1876; application filed November 8, 1875.

To all whom it may concern:

Be it known that I, WILLIAM H. ABEL, of Bristol, in the county of Grafton and State of New Hampshire, have invented an Improved Method or Process of Forming the Foot of Machine-Knit Stockings; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings making part of this specification, and representing the foot part of a stocking formed according to my improvement, together with a portion of the stocking-leg.

My invention consists in the method of knitting the foot-extension *a* of the stocking *A* so as to give it perfect shape, without subsequent cutting and fitting, by beginning to narrow it in the machine at the proper place, as at *b b*, and continuing to narrow at the proper rate until the place is reached where the extremity of the foot is to be, as at *c c*, when the web is brought to its extreme and requisite narrowness, and then beginning to widen the web, and continuing to widen it at a rate corresponding to that of the previous narrowing, until the full width of the foot-web again reached, as at the place *d d*, so that when the foot part is doubled at the line *c c*, and lapped

over, the two divisions will be of equal size, and similar in shape. The adjacent edges are then crocheted or sewed together in the usual way, taking care to catch into the second stitches on the widened edges from *c c* to *d d*, where no real selvage is formed.

The foot may be knit in any knitting-machine capable of narrowing and widening, and adapted to this work; but I have invented a knitting-machine adapted to this special purpose, which will form the subject-matter of additional Letters Patent.

What I claim as my invention, and desire to secure by Letters Patent, is—

The improved method or process of forming the foot of a machine-knit stocking by first narrowing in a knitting-machine the foot part *a*, while knitting it, to the utmost extent required, where the extremity of the foot is to be, and then correspondingly widening it, thereby at once shaping the foot without subsequent trimming, substantially as herein specified.

WM. H. ABEL.

Witnesses:

S. MILTON BEAN,
SAM. HODGSON.