

(Specimens.)

2 Sheets—Sheet 1.

J. F. SLEEPER & J. P. MILLER.

STOCKING.

No. 415,581.

Patented Nov. 19, 1889.

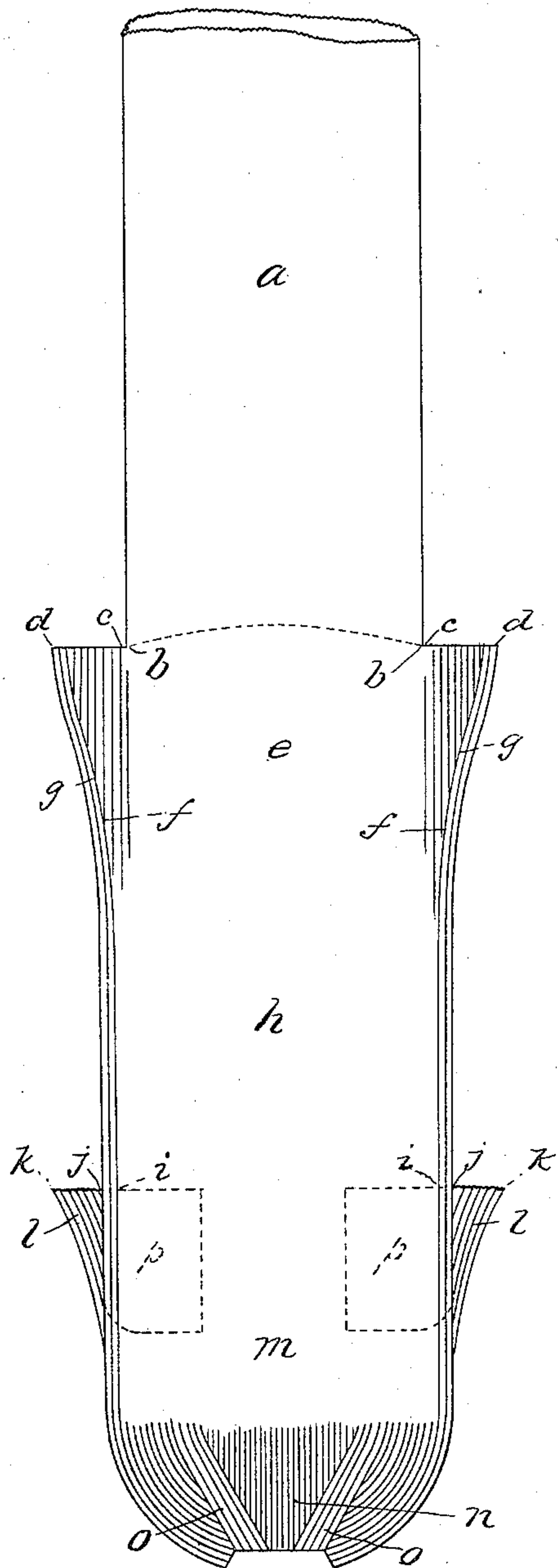


FIG. 2.

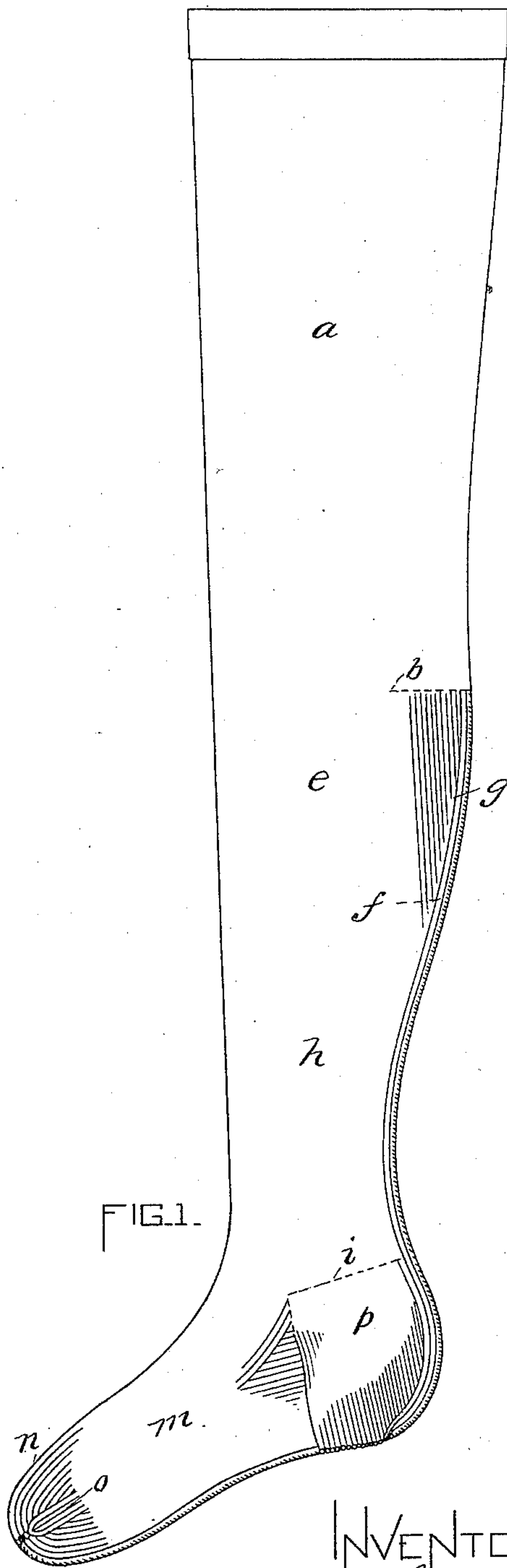


FIG. 1.

WITNESSES.

A. J. Harrison

W. B. Ramsay.

INVENTORS.

J. F. Sleeper,
J. P. Miller,

By J. V. [unclear]
Wright, Brown & Crossley,
Attys.

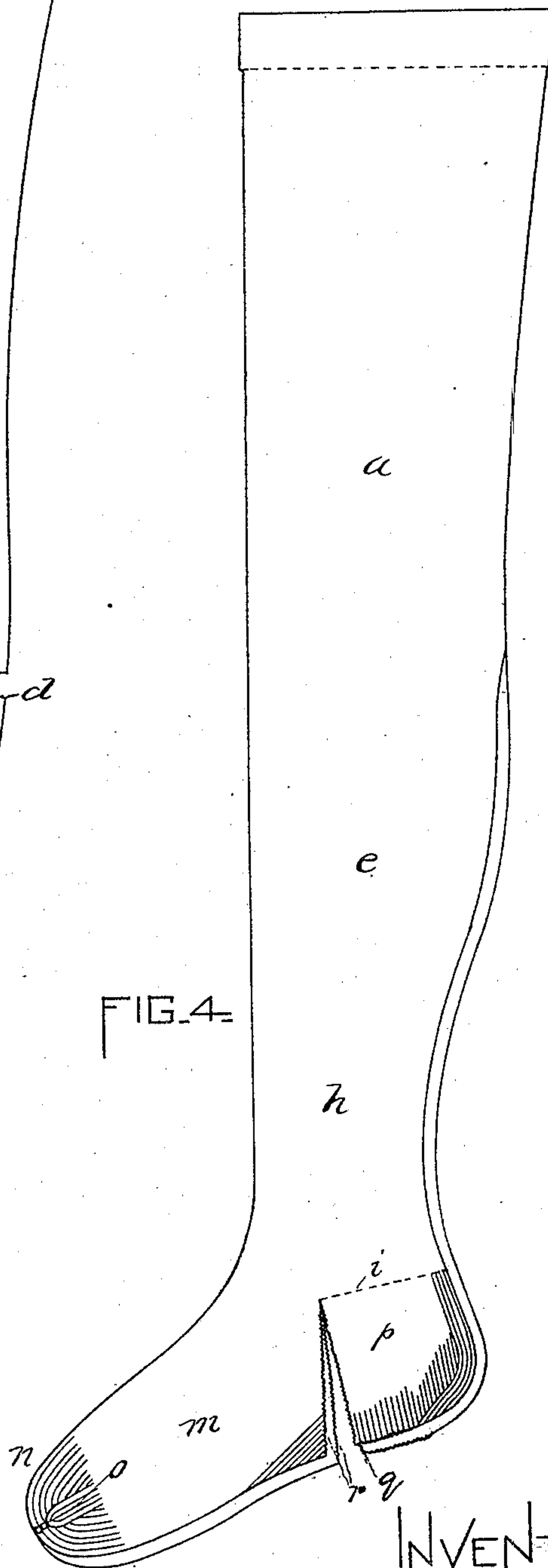
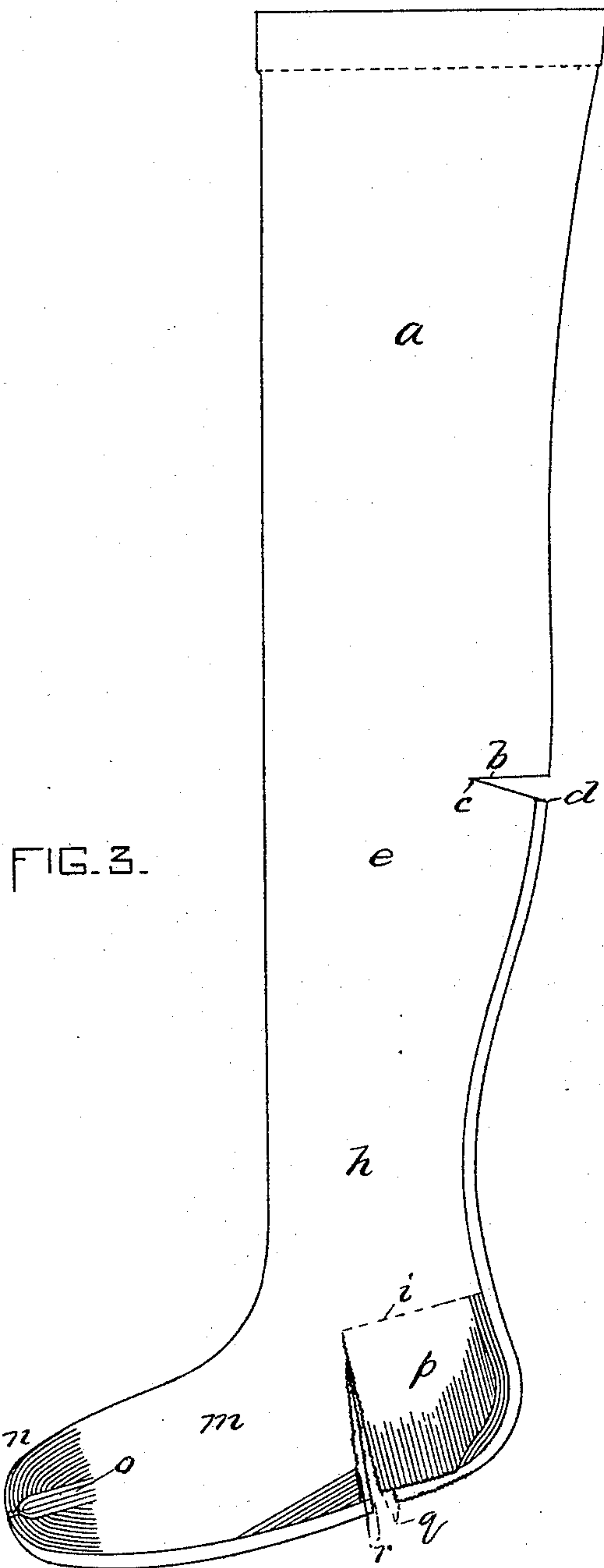
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J. P. Miller.
By Wm. Brown Horsley.
Attys.

UNITED STATES PATENT OFFICE.

JOSEPH F. SLEEPER AND JOHN P. MILLER, OF LACONIA, NEW HAMPSHIRE,
ASSIGNORS TO FRANK P. HOLT, OF SAME PLACE.

STOCKING.

SPECIFICATION forming part of Letters Patent No. 415,581, dated November 19, 1889.

Application filed July 27, 1889. Serial No. 318,811. (Specimens.)

To all whom it may concern:

Be it known that we, JOSEPH F. SLEEPER and JOHN P. MILLER, of Laconia, in the county of Belknap and State of New Hampshire, have
5 invented certain new and useful Improvements in Stockings, of which the following is a specification.

Our invention has particular reference to that kind or class of stockings commonly
10 known among knitting artisans as "French-foot" stockings, it being our object to produce a stocking of the kind mentioned in which the major portion of the length of the leg will be without seam, while the lower leg
15 and ankle and foot portions will be fashioned or shaped so that the finished stocking may completely fit the foot and leg of the wearer.

Our invention consists of a stocking having the upper leg portion knit as a circular seamless web and the ankle portion constructed as
20 a flat-fashioned web, the heel, foot, and toe portions being also fashioned with a seam extending from the toe along the bottom of the foot and heel and in the rear of the latter and
25 the ankle portion, as well as along the line between the forward edge of the heel and the rear edge of the sole portion of the foot.

Reference is to be had to the accompanying drawings, and to the letters of reference
30 marked thereon, the same letters designating the same parts or features, as the case may be, wherever they occur.

Of the drawings, Figure 1 is a side elevation of a complete stocking embodying our im-
35 provements. Fig. 2 is a front view of our improved stocking as the same may be when cast from the machine, the ankle and foot portions being developed or spread. Fig. 3 shows a side view of the stocking represented in Fig. 2,
40 with the parts folded to place and before the edges have been united or looped together. Fig. 4 is a side view of a modified form of the invention.

In the production of our improved stock-
45 ing we knit a circular seamless web for the calf or upper leg portion *a* of the stocking. At the line *b* we may take such circular seamless web, and pick as many as possible of the stitches on the lower edge thereof upon a row
50 of needles, and employ substantially as many more needles holding picked-on loops as there

are loops or stitches in the lower edge of the circular web not picked on the needles, as from the points *c* to the points *d*, Fig. 2, and knit a flat web for the lower portion *e* of the
55 leg below the calf, as from the line *b* to the line *f*, narrowing by transferring stitches inward, as along the lines *g*, and then knit the ankle portion *h* as a substantially straight flat web to the point *i* where the formation of the heel is
60 to be commenced, at which point we bring into operation additional needles (as many as may be necessary) at each end of the row holding stitches, as from the points *j* to *k*, and proceeding with the knitting, and, nar-
65 rowing by the transference of stitches, form the instep portion of the foot with what is commonly known as a "gusset" or "gore" *l* therein. We then proceed with the knitting of the foot portion *m* and toe portion *n*, prop-
70 erly fashioning the latter preferably by what is commonly known as "box-narrowings" *o o*, so arranging or positioning said narrowings as that they may extend along the sides of the toe of the stocking, as shown in Figs. 1, 3, and
75 4. We then cut into the web on each side, at the line *i*, a sufficient distance and run the stitches of the upper cut edges upon a row of needles and knit two half heel-pieces *p*, shaping or fashioning the same as indicated by
80 dotted lines in Fig. 2. We then fold the web, as shown in Fig. 3, and unite the forward edges *q* of the heel-pieces *p* to the rear edges *r* of the sole or instep portions of the foot, and
85 likewise join the edges at the end of the toe, the bottom of the foot, base and rear of the heel, and rear of the leg, looping the stitches of the lower edge of the tubular web not picked
90 upon needles at the line *b* when the knitting of a flat web was begun with the free edges *c d* of the flat web.

The mode of procedure in the formation of our stocking may be varied from that herein-
before recited without materially changing the structural character of our stocking. For
95 example, after knitting the circular seamless portion of the leg down to the point *b*, instead of casting off the web and picking portions of the loops upon another machine, the lower leg, ankle, and foot portions may be knit as
100 a flat web upon the same circular machine as was employed to produce the upper leg por-

tion *a* by reciprocating the cam-cylinder and narrowing by the transference of stitches in a way so well understood as not to need description. By this process there will be no
5 free edges *c d* left to be united to a free edge on the lower end of the tubular seamless web *a*, in which case the stocking, when the knitting is completed and before any seaming or looping is performed, will be formed as represented in Fig. 4.
10

Other variations may be made in the process of manufacturing our improved stocking without affecting the nature or spirit of our invention.

15 The art of knitting our improved stocking forms no part of our present invention, said art being made the subject of a separate application filed by us April 29, 1889, Serial No. 308,943.

20 Having thus explained the nature of our improvements and described ways in which the same may be accomplished, we declare that what we claim is—

1. A stocking having the upper leg portion
25 knit as a circular seamless web and the ankle portion constructed as a flat-fashioned web, the heel, foot, and toe portions being also fashioned with a seam extending from the toe along the bottom of the foot and heel and in
30 the rear of the latter and ankle portion, as well as along the line between the forward edge of the heel and the rear edge of the sole portion of the foot, as set forth.

2. A stocking having the upper leg portion knit as a circular seamless web and the ankle
35 portion constructed as a flat-fashioned web, the heel, foot, and toe portions being also fashioned (said toe portion having the box-narrowings *o*) with a seam extending from the
40 toe along the bottom of the foot and heel and in the rear of the latter and ankle portion, as well as along the line between the forward edge of the heel and the rear edge of the sole portion of the foot, as set forth.

3. A stocking having the upper leg portion
45 knit as a circular seamless web and the ankle portion constructed as a flat-fashioned web, the heel, foot, and toe portions being also fashioned (said toe portion having the box-narrowings *o*, and said foot portion being pro-
50 vided with gussets, as described) with a seam extending from the toe along the bottom of the foot and heel and in the rear of the latter and the ankle portion, as well as along the
55 line between the forward edge of the heel and the rear edge of the sole portion of the foot, as set forth.

In testimony whereof we have signed our names to this specification, in the presence of two subscribing witnesses, this 12th day of
60 July, A. D. 1889.

JOSEPH F. SLEEPER.
JOHN P. MILLER.

Witnesses:

S. S. JEWETT,
GEORGE B. LANE.