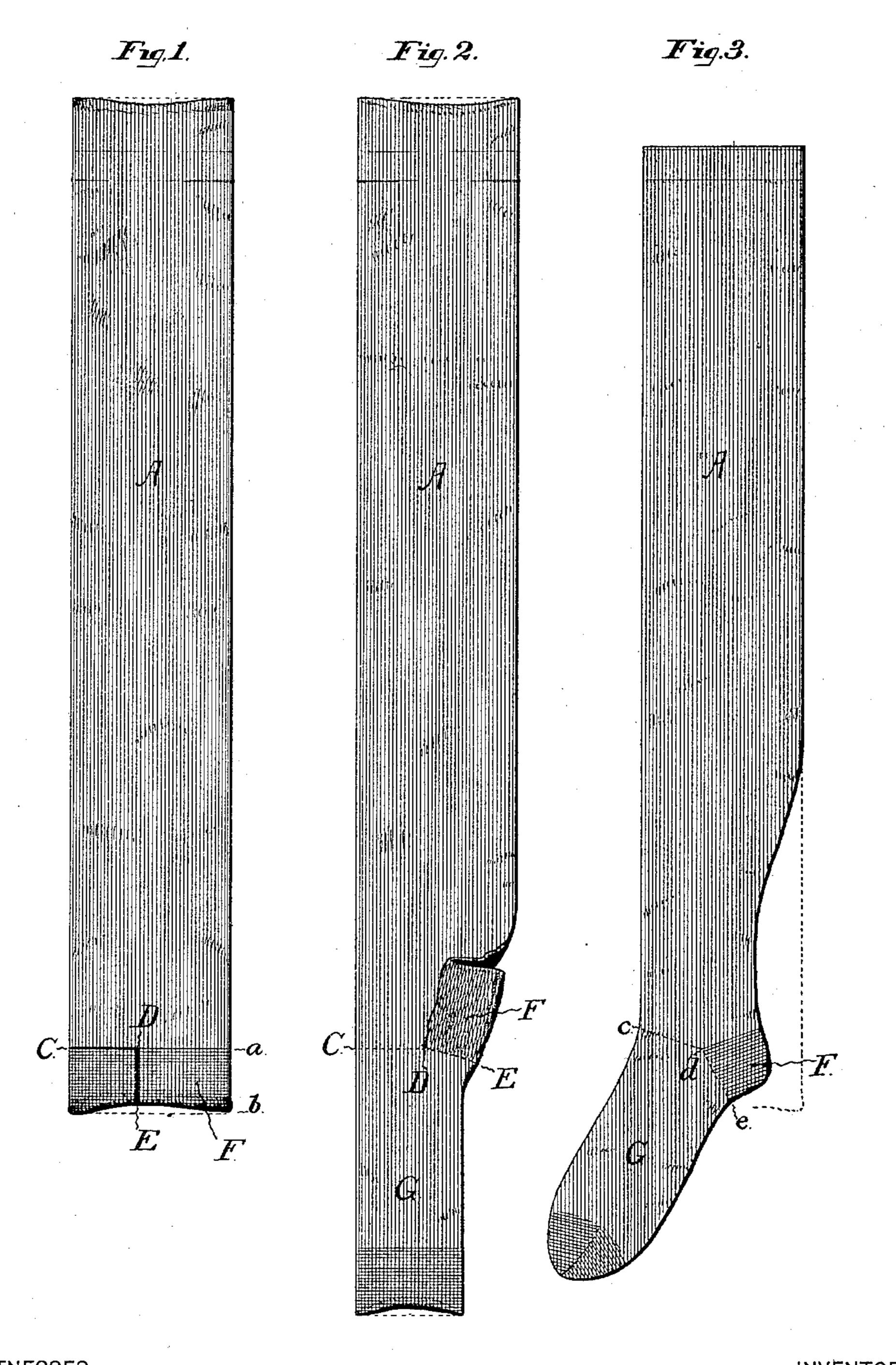
## 0. OSBORNE.

## ART OF MAKING STOCKINGS.

No. 398,532.

Patented Feb. 26, 1889.



WITNESSES: A. G. Jaige AD Mollingenorth Maly allomens

## UNITED STATES PATENT OFFICE.

OWEN OSBORNE, OF PHILADELPHIA, PENNSYLVANIA.

## ART OF MAKING STOCKINGS.

SPECIFICATION forming part of Letters Patent No. 398,532, dated February 26, 1889.

Application filed April 6, 1888. Serial No. 269,800. (No model.)

To all whom it may concern:

Be it known that I, OWEN OSBORNE, of Philadelphia, in the State of Pennsylvania, have invented a certain new and useful Improve-5 ment in the Art of Making Stockings, whereof the following is a specification, reference being had to the accompanying drawings.

In said drawings, Figure 1 represents the article at the conclusion of what may be ap-10 propriately called the "first stage" of my improved method; Fig. 2, the same at the conclusion of the second stage, and Fig. 3 the

finished stocking.

The object of my invention is to manufac-15 ture upon an ordinary round frame a stocking whose foot portion is continuous with its leg, and which has no seam along said foot portion, such manufacture being without substantial waste of material or increase of labor.

I first knit upon a round frame the tube which is to form the leg of the stocking, of the usual dimensions and in the ordinary manner. I prefer to make that portion of the tube from which ultimately the heel of the stock-25 ing is to be made of extra thickness. This may be accomplished in the well-known manner by using an "extra" or second thread knitinto the fabric along with the main thread; or I may make the said portion of a different 30 color from the leg and foot by breaking off the thread from which the main portion of the tube has been formed and twisting onto the end thereof another end of yarn of different color, as is well understood. In Fig. 1, A 35 represents such a tube, the shaded portion from a to b representing the "double" fabric for the heel. I then remove a portion of the lower end of the tube by cutting it upon the lines CDE, so as to form a rectangular in-40 cision. The total length of the edges of this incision—that is to say, of the lines C D E—! different foot sizes. I then complete the foot 45 portion as follows: From the point C to the point D the edge of the fabric is run on loop by loop upon the needles of a smaller roundframe machine of the proper diameter. When

the corner D is reached, the flap F of the heel

portion of the main tube is turned or twisted 50 back out of the way, so as to bring the edge D E into a straight line with the other edge thereof, C.D. The loops of this portion D.E. of the edge are then forced or "jabbed" onto the remaining needles of the smaller frame, 55 so as to complete the circle of loops. The foot portion is then knit to the proper length, as indicated at G in Fig. 2, where the distortion of the edge D E and the consequent folding and wrinkling of the heel portion F of 60 the main tube are shown. The heel, ankle, and lower part of the leg are then cut to the proper shape and the edges of the cut are united. These two operations are simultaneously performed by means of a sewing-ma- 65 chine and trimmer in the well-known manner, and the toe portion is also cut to shape and sewed by the same method.

The finished product is shown in Fig. 3, where the dotted lines c d e indicate the line 70 of junction between the fabrics formed by the two knitting operations, the ends of the yarn, however, being removed by the ordinary method, so that the line of merging can scarcely be detected by the eye. In this man- 75 ner the formation of the usual seams along the foot, which are considered highly objectionable in this class of hosiery, is obviated.

Having thus described my invention, I claim—

The hereinbefore-described improved art or method of making stockings, which consists of, first, knitting a tube which is to form the leg; second, cutting out a portion of the end of said tube to form an incision the length of 85 whose edges corresponds to the periphery of the foot portion; third, running the loops along said edges onto the needles of a frame of the proper diameter to form the foot portion; fourth, knitting on said foot portion, and, fifth, 90 is to be equal to the periphery of the foot cutting the tube first formed upon the proper portion of the stocking, and hence varies with | lines to shape the heel, ankle, and lower portion of the leg and uniting the cut edges by sewing, substantially in the manner described. OWEN OSBORNE.

Witnesses:

GEORGE HOUSE, JAMES H. BELL.