

(No Model.)

S. BORTON.

METHOD OF PREPARING RIBBED BANDS FOR ATTACHMENT TO
ARTICLES MADE FROM KNIT GOODS.

No. 456,469.

Patented July 21, 1891.

FIG. I.

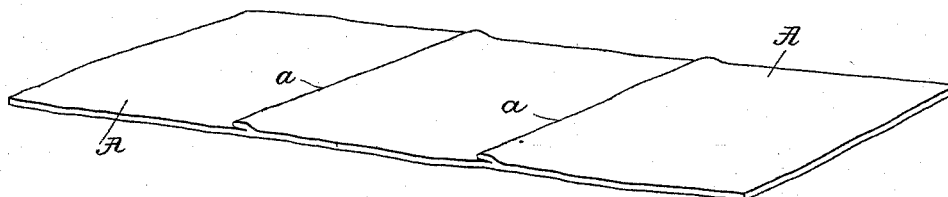


FIG. II.

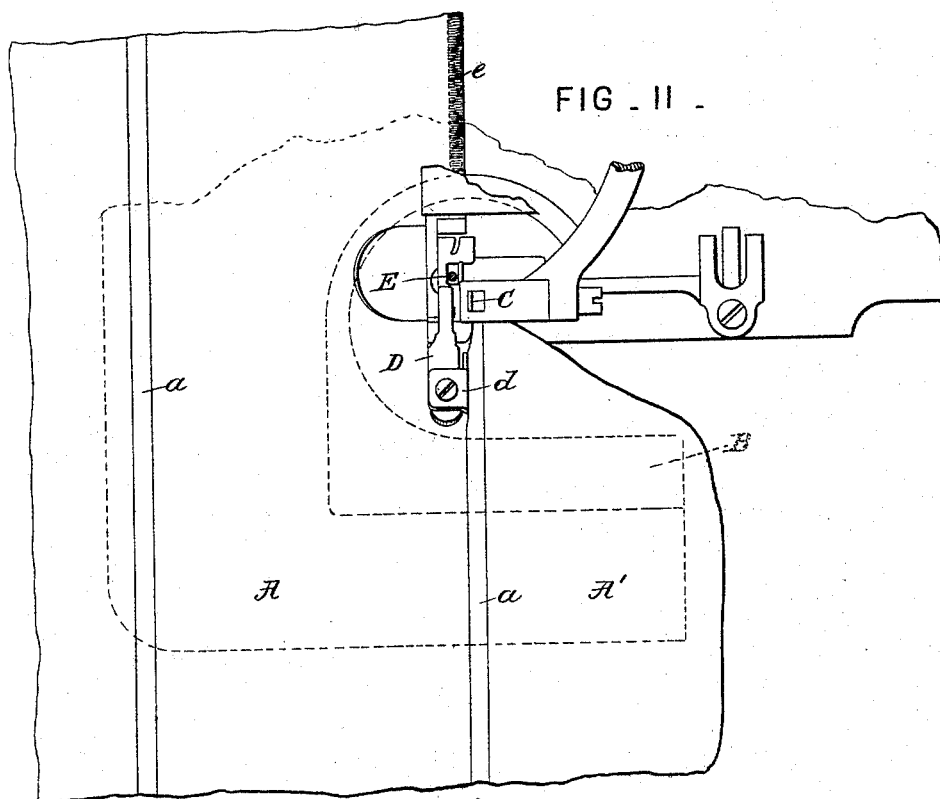
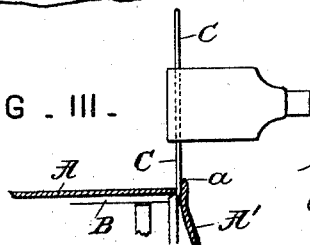


FIG. III.



Attest
Geo. T. Smallwood
J. B. Boley.

Inventor:
Stockton Borton
by Robert Mauro,
his attorney.

UNITED STATES PATENT OFFICE.

STOCKTON BORTON, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO THE
WILCOX & GIBBS SEWING MACHINE COMPANY, OF NEW YORK, N. Y.

METHOD OF PREPARING RIBBED BANDS FOR ATTACHMENT TO ARTICLES MADE FROM KNIT GOODS.

SPECIFICATION forming part of Letters Patent No. 456,469, dated July 21, 1891.

Application filed March 30, 1891. Serial No. 387,009. (No specimens.)

To all whom it may concern:

Be it known that I, STOCKTON BORTON, a resident of Providence, county of Providence, and State of Rhode Island, have invented a new and useful Improvement in the Manufacture of Articles from Cut Knit Goods, which improvement is fully set forth in the following specification.

In the manufacture of hosiery and underwear from cut knit fabric it is customary to finish off the ends of certain articles—as the tops of stockings, the ends of shirt-sleeves, the ankle portion of the legs of drawers, &c.—by attaching to the body of the article a strip or band of peculiar ribbed fabric knitted expressly for the purpose. This fabric is known as “knit ribs” or welted stuff, and its distinctive feature is a series of parallel lips or welts, which project from one side of the goods and extend across the same. Heretofore in using this stuff it has been severed into strips by cutting along and close to the welt either by hand or by a special cutting apparatus. The welt at one edge forms the finish or end of the sleeve or other part to which the opposite raw edge is attached. Heretofore this latter operation has been effected in several ways; but I would particularly refer to the method described in the application of Christina P. Borton, filed April 22, 1890, Serial No. 348,977, according to which the raw edges of knitted goods are provided each with a row of stitches constituting an artificial selvage and then united by another line of interlocking stitches. I may also refer to the method described in my prior application, filed May 24, 1890, Serial No. 353,042.

The object of the present invention is to facilitate, cheapen, and improve the application of the ribs or welted stuff to the sleeve or other part of a garment to which it is attached; and the invention consists, essentially, in severing the ribbed fabric along and under the welt, and as fast as the goods are cut and before the edge can curl or ravel forming along the raw edge cut away from the adjacent welt a row of protective stitches in the manner described in the above applications for preparing a raw edge, or in an equivalent manner. By this method I practically save one operation and cheapen by so much the

manufacture of articles of the class referred to. Furthermore, an improved result is effected, as the trimmer follows the line of the welt, cutting under the same and leaving no burr on the under side. The raw edge being protected with the selvage or anchorage stitches as soon as it is cut does not ravel or curl and requires no further trimming or other preparation. Wastage of stock is also avoided, and the ribbed fabric can be knit with the welts closer together by from one-quarter to one-half an inch. Heretofore a surplus margin has been allowed for raveling off in attaching the ribbed band by the old plan of looping on what is known as a “turning-off” machine.

In carrying out this invention I may advantageously employ a sewing-machine having a trimming device acting in advance of overseaming or zigzag stitching mechanism, or I may employ a known type of machine provided with two needles and an oscillating thread-carrying device in conjunction with trimming mechanism either in front of or behind the needles.

In the accompanying drawings, which form part of this specification, Figure I represents in perspective a piece of welted stuff or ribs. Fig. II illustrates in plan the operation of cutting and simultaneously protecting the raw edge, and Fig. III is a view in section and elevation illustrating the operation of cutting under the ribs.

As indicated in Fig. I, the welted fabric A is so knitted that the welts or lips *a* lean over in the same direction on the upper side of the fabric. In severing the fabric it is placed on the work-plate B, and that portion on which the welt is to be left is bent over the edge of the said work-plate just in advance of the trimmer-blade C, causing the welt *a* to stand out vertically, or nearly so, (see Fig. III,) and permitting the trimmer to shear the fabric directly along the welt, leaving no burr on that side. A guide *d*, attached to the presser-foot D, assists in holding the rib out of the path of the blade C. As the trimmer proceeds, the strip A', having the rib *a* at its edge, falls off the edge of the work-plate, the latter being cut out, as indicated in dotted lines, Fig. II, for the passage of the strip. At

the same time, by means of the needle E and the usual co-operating stitch-forming devices, a row *e* of protective stitches is formed along the adjacent raw edge of the main piece of goods. When the first strip A' is cut off, the other strips are treated successively in the same way, each strip as it leaves the machine having a finishing-welt *a* along one edge and a row of protective stitches *e* along the other edge. The latter edge is now ready for attachment to the end of a shirt-sleeve or to the appropriate part of another article, such as I have before specified, by another row of stitches engaging with the stitches *e*, as described in the above-mentioned applications, or in the manner set forth in another application for Letters Patent filed by me March 30, 1891, and serially numbered 387,010.

The drawings show parts of an overedge-machine, such as described in application of Charles H. Willecox and Stockton Borton, filed May 24, 1890, Serial No. 353,091, such parts being modified for the purposes of this invention. I wish it to be understood, however, that the process described is independent of any particular mechanism and that the mechani-

cal devices referred to are described simply for the purposes of explanation.

Having thus fully described my said invention, what I claim, and desire to secure by Letters Patent, is—

In the manufacture of articles from knit goods, the improvement consisting in preparing the ribbed band for attachment to the article by severing the welted stuff along and under the welt, and then, while the cutting proceeds, applying to the raw edge, as presented by the progressive action of the cutting device, on the piece of goods from which the welt has been severed a line of protective stitches, thereby producing strips or bands having a rib or welt on one edge and a row of stitches along the other, substantially in the manner and for the purpose described.

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

STOCKTON BORTON.

Witnesses:

J. PARMLY,
S. HERMAN.