Nov. 18, 1924. 1,516,181

G. P. GARDNER

PROCESS OF MAKING NECKTIES

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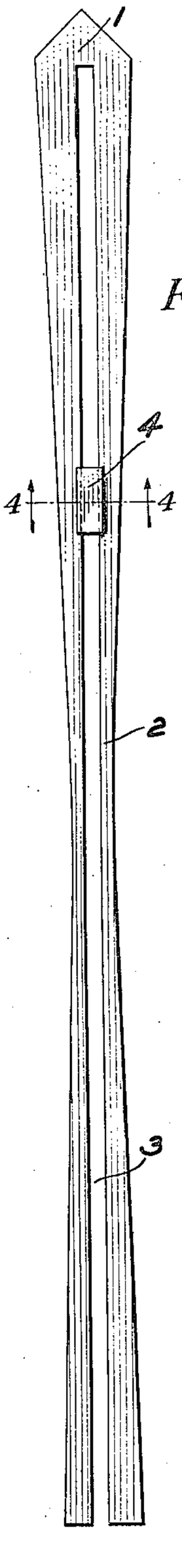


Fig. 1

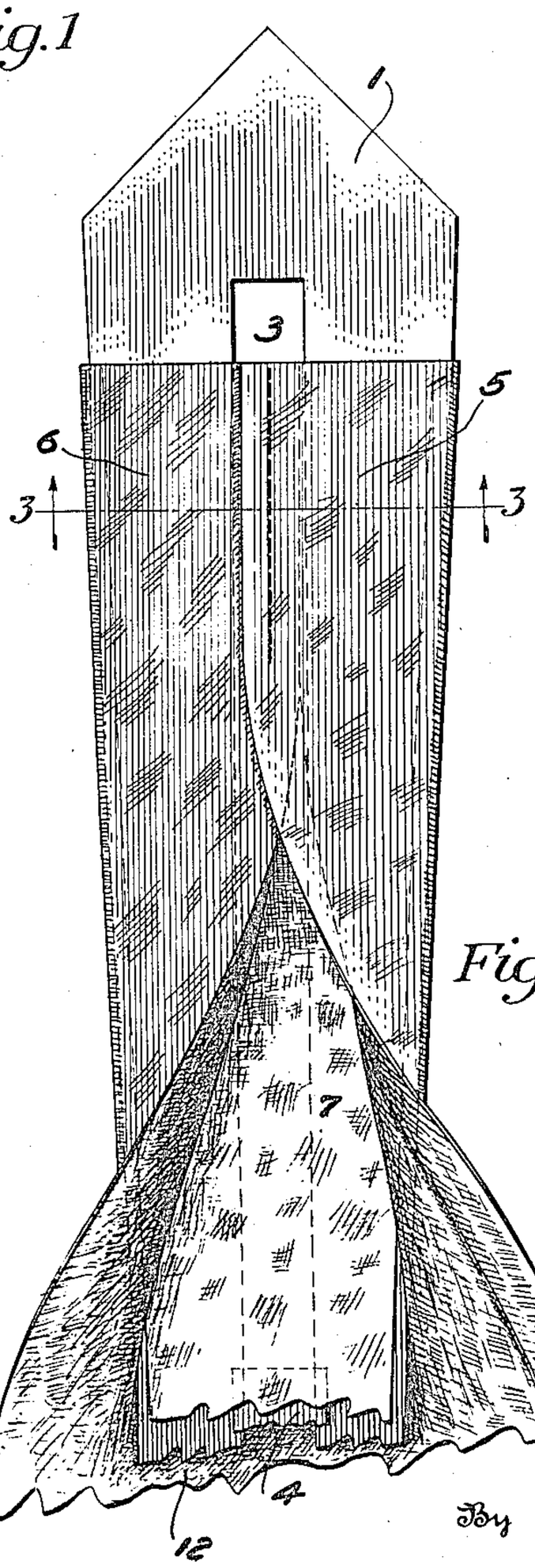


Fig. 2

Fig. 3

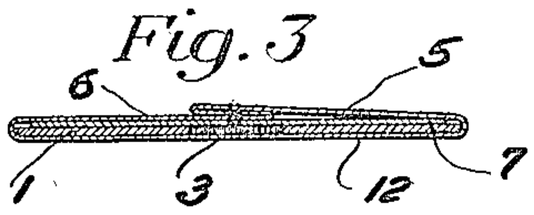
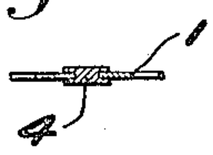


Fig. 4



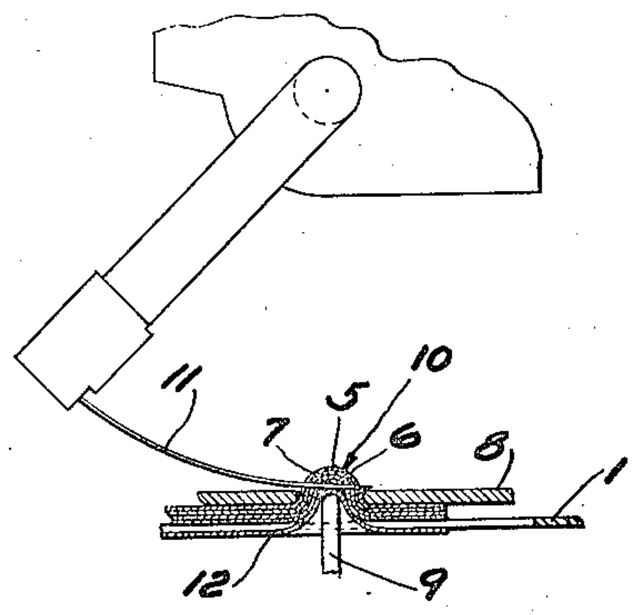


Fig. 5

Inventor
Gus. P. Gardner

By Wood & Wood

Attorneys

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UNITED STATES PATENT OFFICE.

GUS P. GARDNER, OF LUDLOW, KENTUCKY.

PROCESS OF MAKING NECKTIES.

Application filed October 8, 1921. Serial No. 506,468.

To all whom it may concern:

Be it known that I, GUS P. GARDNER, a citizen of the United States, and residing at Ludlow, in the county of Kenton and State of Kentucky, have invented a new and useful Process of Making Neckties, of which the following specification is a full disclosure.

My invention relates to a process of making scarfs or neckties, in which the fabric is folded to provide a plural-ply band, giving body to the product and providing fold edges longitudinally thereof, and enabling the raw edges of the fabric to be concealed, as well as imparting tubular characteristics thereto, for enclosing a stiffening or lining between the layers.

Under the prevailing methods, the tie fabric, cut to a particular form pattern, has its opposite longitudinal edges stitched together to form a tube. The fabric is folded upon itself, wrong side out for stitching, bringing the raw edges together along one longitudinal edge, which is hemmed or seamed by the ordinary sewing-machine, stitching through from both sides of the lapped material. The tube thus formed, is turned to bring the reverse side or under face of the fabric inward and also adjusted to bring the seam along a central longitudinal line upon the rear side of the tie or band. This requires considerable manual manipulation and hand-pressing. After the stitching and turning operation, the lining is then drawn into the flat tube, which is a very tedious and laborious manual operation requiring considerable skill and time in order to smoothly insert the lining. This operation is very complicated because of the tapering outline of some forms and styles of neckwear, the neckband portion of the tie being considerably narrower than the opposite end portions.

It is, therefore, an object of my invention to overcome the time consuming and laborious operations necessary in the prevailing methods of manufacturing neckties, by avoiding any turning operations; by seaming the folded fabric with the lining inserted, whereby the lining may, if desired, be stitched to the fold layers of the fabric at the reverse side of the tie.

Another object of my invention is to fold the fabric, after being cut to pattern, over a form and to stitch or seam the longitudinal edges of the fabric together, while the form is disposed between the fold layers, thereby enabling the tie to be shaped and stitched in exact conformity with the outline of the form, to produce a more superior finished product and one which will more permanently retain its form shape in use.

Another object of my invention is to fold the fabric to its finished form and to stitch together the lapped edges of the fabric on the reverse side of the tie, on a blind-stitch sewing-machine.

Another object of my invention is to fold the fabric over a former and lining, with the opposite longitudinal edges of the fabric meeting centrally of the reverse sides of the tie, and to stitch the same together and to the lining.

Other objects of my invention relate to the various manipulative steps for folding and stitching the fabric, whereby the stitching forms the final step in the making of the tie, and to the provision of a form which will permit the fabric to be stretched thereover, and machine-sewed with the form in position between the fabric layers, and to a finished product with the lining stitched to the tie fabric, without exposing the stitching on the face side of the tie, all of which is clearly revealed in the description of the accompanying drawings, forming a part of this specification, and in the drawings like characters of reference denote corresponding parts throughout the several views, of which:

Fig. 1 is a plan view of the form over which the tie fabric is folded.

Fig. 2 is a plan view of an end of a tie folded over the form and partly stitched, with a portion of the fabric fold thrown open to disclose the lining, form, and one of the fabric edge seams lapped.

Fig. 3 is a section on line 3, 3, Fig. 2.

Fig. 4 is a section on line 4, 4, Fig. 1.

Fig. 5 is a sectional view, illustrating the stitching position of the tie and lining, held upon the form, and parts of the fabric raised upwardly through the feed plate to expose the upper fabric layers for needle engagement.

Referring to the drawings, 1 indicates the tie form, over which the tie fabric is folded. The form outline is the desired pattern to be given to the finished tie to meet the prevailing fashions, and as shown provides a central narrow width portion 2 for the neckband portion of the tie. From the

neckband portion 2 it tapers, increasing in width to the opposite ends. It is made from a flexible material, such as sheet metal, and is provided with a central longitudinal slot 3 open at one end of the form, dividing the form into a pair of strips, adapted to be flexed toward and upon one another at its open slotted end to enable the forms to be withdrawn from the tube, which the tie forms after stitching. This is necessary on account of the narrow neckband portion 2, the strip ends when overlying each other presenting a width approximating or less than the normal neckband portion. The slot also provides a stitch-way for the sewing-machine and a slide-way for the slide-plate or block 4. This slide-plate has its opposite edges grooved for engagement with the form strips, so that the slide can be slid longitudinally of the form, progressing with the stitching or sewing advance to prevent the inward compression of the form strips as the tie fabric is folded and stretched thereon.

The use of this particular construction of form is very advantageous to my method or process of making a tie and facilitates various operations thereof, but the details of construction are not essential in practising my method of tie manufacture, as it is possible to eliminate the form during the step of stitching. The form, however, is very desirable in a process wherein the tie fabric is folded to form, and stitched at the same time, and preference to its use will be given in the following description of the process.

The tie fabric is cut to the desired outline pattern necessary for a particular style or form of tie which does not differ in pattern from that used in the prevailing methods, so that the cutting of the fabric to pattern need not be regarded as a step in the process, likewise as to the cutting of the lining to pattern, if a lining be used.

The tie fabric, presumed to be cut to its proper pattern, is initially folded over the form for its full length or progressively with the stitching, and as fed to the sewing-machine, depending upon the skill developed, or upon the method preferred by the operator. The inserting of the form or the folding of the fabric over the form, while treated as a step in the process, need not follow such definite direction, except that the fabric is folded over the form with the face side of the fabric outward, and the lapping of the opposite longitudinal edges of the fabric along a line over the slot or stitch-way in the form is made, so that the opposite longitudinal edges of the fabric along a line over the slot or stitch-way in the form, can be properly operated upon by the sewing-machine for stitching. A primary way is for the operator to place the fabric its full length upon the table, face side down, then apply the form centrally upon the upper or fabric reverse side, fold the fabric over the form, adjusting it to the form, so that the longitudinal opposite edges of the fabric overlap for a stitch line within the stitch-way or slot 3 of the form. The layer portion or fold (say 5) presented uppermost upon the opposite layer portion or fold 6 has its longitudinal edge doubled back or hem-folded to conceal the raw edge when the folds are stitched together.

If the lining 7 is to be used, this is placed upon the upper side of the form before the fabric ends are folded, to bring the lining between the form and folds 5, 6, or it may be placed below the form. This preliminary operation permits the folded fabric, lining and form to be adjusted for a proper positioning of the parts. The assembled parts are then fed through a sewing-machine for seaming the lapped ends of the folded fabric together from one end thereof, longitudinally to the other end.

A blind-stitch sewing-machine is preferably used for stitching, Fig. 5 illustrating the stitching operation. A commercial machine adaptable for this work is known as a "Lewis zero-degree flat bed machine." The figure diagrammatically illustrates such parts of a blind stitch sewing-machine as are sufficient for the present purpose, in which 8 indicates a feed plate having an aperture through which the goods fed therebeneath is pressed by a plunger 9. This crimps the goods, bringing the crimp 10 in a position in which the needle 11 can penetrate the goods to the depth or degree required.

As shown in said figure, the needle penetrates to a degree engaging the interlining 7, but without penetrating the under layer 12 as the face layer of the tie. The plunger of the machine is adjustable for regulating the depth of stitch, therefore the adjustment can be made to avoid stitching the lining to the folds or back of the tie, and if desired, an adjustment can be made, so that the needle will penetrate the front of the tie, but without going through the face side, so as not to show any stitch mark on the face side. The lining, therefore, can be securely fastened within the tie, so that it will not wad up or slip out of position. With the lining securely held in place, the tie will retain its original shape for a longer period than otherwise and eliminate other undesirable features, and the lining is felled without an increase in cost or labor.

The folded fabric with the inserted form and lining is fed to the machine from one end, as shown in Fig. 2, with the back of the tie or fold side uppermost, the operator, as the sewing advances or progresses, drawing and stretching the folds toward each other

over the form and centering the seam to align and register the same with the stitchway or slot in the form, and progressively advancing the slide-plate. After the longitudinal stitching has been completed, the form is withdrawn, and the opposite end edges trimmed and hemmed, as desired, after which the tie is pressed, whereupon is presented a finished product.

Drawing the fabric tautly over the form and centering the seam at the time of stitching, leaves the tie after stitching in an approximately flat condition, in which it can be readily pressed without adjustment.

Under this process, the fabric is folded and stitched into the form of a tube with the face side of the fabric exposed, thereby eliminating a turning operation.

Having described my invention, I claim:

1. The process of making a necktie, consisting in folding the tie pattern cut fabric over an appropriate form of interlining, face side of the fabric outward and lapping the folded longitudinal ends of the tie fabric at the rear side of the tie, and stitching the lapped ends of the fabric together and to the interlining by stitching running longitudinally of the tie and extending through the interlining and lapped ends only.

2. The process of making a necktie, consisting in folding the pattern fabric over a form, face side of the fabric outward, joining the ends along a medial longitudinal line of the form, inserting an interlining within the folded fabric, and stitching the ends of the fabric and interlining together with a blind stitch.

3. The process of making a necktie, consisting in folding and stretching the tie fabric cut to pattern, face side outward, over a form, bringing the opposite edge margins overlappingly together to form a tube, and stitching the meeting edges together, the folding over of the fabric being progressive with the stitching advance, and withdrawing the form longitudinally after stitching.

In witness whereof, I hereunto subscribe my name, as attested by the two subscribing witnesses.

GUS P. GARDNER.

Witnesses:
L. A. BECK,
BERTHA SCHLAN.