

A. H. DE VOE.
SEWING MACHINE GUIDE,
APPLICATION FILED MAY 23, 1910

991,430.

Patented May 2, 1911.

Fig. 1.

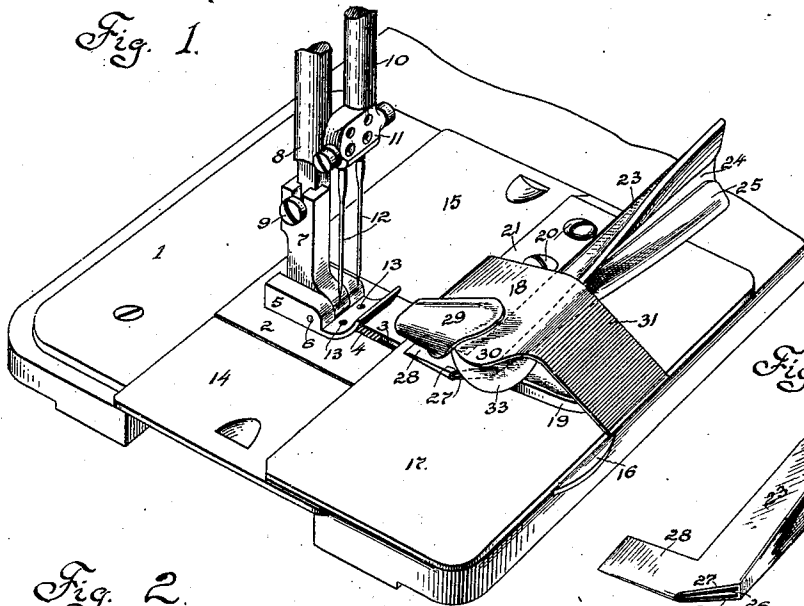


Fig. 6.

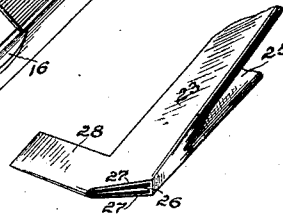


Fig. 2.

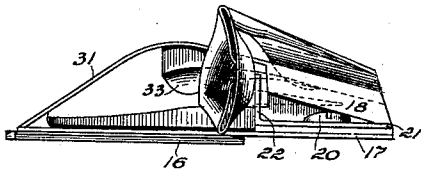


Fig. 3.

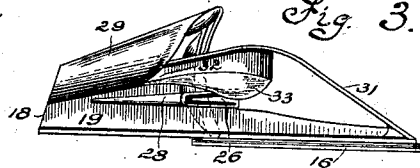


Fig. 4.

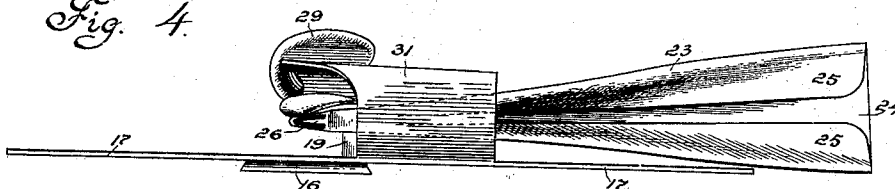
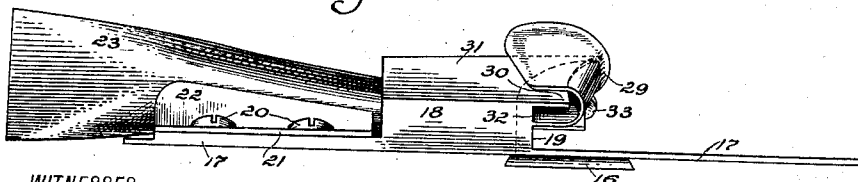


Fig. 5.



WITNESSES:

J. Riphut

Peza Ferran

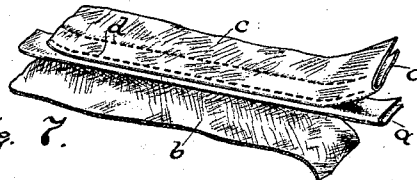
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Fig. 7.



UNITED STATES PATENT OFFICE.

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SEWING-MACHINE GUIDE.

991,430.

Specification of Letters Patent.

Patented May 2, 1911.

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To all whom it may concern:

Be it known that I, ALBERT H. DE VOE, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Sewing-Machine Guides, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates particularly to an improvement in strip-folding guides for producing piping and presenting it to the stitch-forming mechanism of a sewing machine for attachment to a body fabric, and
15 it has for its special object to provide an effective attachment for inserting a colored piping between the overlapped marginal portions of the fronts and backs of trouser legs in military uniforms to produce a stripe
20 extending lengthwise thereof along the outside seams.

In its preferred embodiment, the attachment is constructed with a base-plate provided upon the top with an edge-guide
25 across which extends the delivery end portion of a strip-folding tube spaced above said base-plate and having a channel closed along the edges with its marginal portions overlapped at the delivery end and separated by a tongue extending from the closed
30 edges of said portions toward their junction and terminating in inclined turning edges embracing said tongue and extending from the base of the latter forwardly,
35 or in the direction in which the strip passes through the channel, and transversely of the channel, said strip-folding tube having an external fabric-supporting wing projecting transversely from the delivery portion
40 in the same direction and in substantial alinement with said tongue. Supported upon said base-plate and spaced above the delivery end of the strip-guiding tube is an edge-turning scroll for turning under the
45 margin of the upper ply of fabric whose body portion overlies the body of the strip-folding tube.

In the accompanying drawings Figure 1 represents parts of the work-plate and the
50 stitch-forming and feeding devices of a sewing machine of the well known Singer type and provided with a guiding attachment embodying the present improvements. Figs.

2, 3, 4 and 5 are elevations of the attachment taken respectively from the receiving and
55 delivery ends and front and rear sides of the strip-folding tube. Fig. 6 is a perspective view of the delivery end portion of the strip-folding tube detached from the other parts of the attachment. Fig. 7 is a perspective view showing a portion of a lap
60 seam provided with a strip of piping produced by the use of the present improvement.

Referring more particularly to Fig. 1, the
65 sewing machine bed-plate 1 supports the usual throat-plate 2 with feed-dog aperture 3 to receive the feed-dog 4 overlying which is the pressure member 5 of the presser-foot which is pivoted by means of the transverse
70 pin 6 to its shank 7 secured upon the reduced portion of the presser-bar 8 by means of the clamp-screw 9. The stitch-forming mechanism includes the reciprocating needle-bar
75 10 provided with the twin-needle clamp 11 carrying the needles 12 which pass through the needle-holes 13 in the presser-foot and the usual apertures provided therefor in the throat-plate. The bed-plate is provided with
80 the usual removable slides 14 and 15 for access to the parts beneath. The bed-plate is further provided in its top within the direction of feed with a slideway to receive the slide-plate 16 upon which is secured the attachment base-plate 17 having upon its
85 upper face the transversely disposed block 18 affording an edge-guide 19 for the lower ply of fabric. Secured upon the base-plate 17 by means of fastening screws 20 is the foot-piece 21 having the upturned flange 22
90 to the face of which is secured the back of the strip-folding tube 23. This tube is provided with a strip-guiding channel 24 which is substantially flat at its receiving end with
95 closed marginal portions overhung by the lips 25 extended inwardly but having their adjacent edges spaced apart near the center of the channel for access to the strip or
100 tape therein, and such marginal portions of the channel are gradually bent into overlapping relation which condition they assume at the delivery end which extends over and slightly beyond the edge-guide 19, the lips
25 gradually merging into the tongue 26 forming a partition between the overlapped
105 channel portions and extending from their

separated edges toward their junction, as represented in Figs. 3, 4 and 6. The delivery end of the tube 23 is cut away at an angle with its length so as to produce in its outer sides fabric-turning edges 27 upon opposite sides of the tongue 26 which are inclined to the length of the tube and extend from the base of the tongue forwardly and transversely of the channel in the direction of feed, and the tube is provided adjacent the same with a transverse external fabric-supporting wing 28 projecting therefrom in the same direction and in substantial alinement with said tongue. Sustained by the block 18 with its lower member spaced above the delivery end of the tube 23 and wing 28 is the edge-turning scroll 29 entered by the separating tongue 30 of the arched plate 31 overlying the forward portion of the tube 23 and adapted to support the upper ply of fabric in its advance into the scroll 29. The upper edge portion of the block 18 affords an edge-guide 32 above the guiding edge 19 to receive the edge of the upper ply of fabric turned under by the scroll, and a fabric-supporting wing 33 beneath the mouth of the scroll 29 and disposed in substantial alinement with the lower member of said scroll overhangs the delivery end of the strip-folding tube so as to support the underturned margin of the upper ply of fabric free from interference with the strip emerging from the strip-guiding channel.

In the use of the attachment as thus described, a strip or tape is led from a reel, arranged preferably at the right of the stitching mechanism, into the receiving end of the tube 23 and forwardly through the V-shaped delivery end of the channel, from which it is led abruptly over the inclined turning edges 27 at the extremity of the tube with its upper and lower portions embracing the corresponding faces of the wing 28 from which it is led in the form of piping *a* beneath the presser-foot 5. The edge of the lower ply *b* of fabric is introduced from the left into operative relation with the edge-guide 19, while the marginal portion of the upper ply *c* of fabric is introduced from the right over the supporting plate 31 and into the scroll around the edge of the tongue 30 to produce the fold *b'*, the several plies of material occupying the relative positions represented in Fig. 7. The operation of the stitching mechanism unites the several plies by parallel lines *d* of stitching through the superposed folds of the upper ply of fabric and the tape and through the single ply of the lower fabric, as represented in Fig. 7.

It is evident that the character and relative positions of the guides for the body fabrics to which the piping is secured will depend upon the kind of seam which is desired, and that the guides 19 and 29 may be transposed in position or either duplicated in

place of the other without departure from the present invention; and also that the form and arrangement of parts of the piping guide may be modified to a certain degree within the scope of the invention.

Having thus set forth the nature of the invention, what I claim herein is:—

1. A sewing machine guide comprising a strip-folding tube having a channel with its marginal portions overlapped at the delivery end and separated by a tongue extending toward their junction, said tube terminating in turning edges upon opposite sides of said tongue inclined to the length of the same and extending from the base of the tongue forwardly and transversely of the channel, said tube affording at its delivery end a convex support upon which a strip issuing from the channel is turned.

2. A sewing machine guide comprising a strip-folding tube having a channel with its marginal portions overlapped at the delivery end and separated by a tongue extending toward their junction, said tube terminating in turning edges upon opposite sides of said tongue inclined to the length of the same and extending from the base of the tongue forwardly and transversely of the channel, and an external fabric-supporting wing extending transversely from the delivery portion of said tube in the same direction and in substantial alinement with said tongue.

3. A sewing machine guide comprising a strip-folding tube having a channel with its marginal portions overlapped at the delivery end and separated by a tongue extending toward their junction, said tube terminating in turning edges upon opposite sides of said tongue inclined to the length of the same and extending from the base of the tongue forwardly and transversely of the channel, and an external fabric-supporting wing extending transversely from the delivery portion of said tube in the same direction and in substantial alinement with said tongue, combined with an edge-turning scroll in overlapping relation with and spaced from the delivery end of said strip-folding tube.

4. A sewing machine guide comprising a strip-folding tube having a channel with its marginal portions overlapped at the delivery end and separated by a tongue extending toward their junction, said tube terminating in turning edges upon opposite sides of said tongue inclined to the length of the same and extending from the base of the tongue forwardly and transversely of the channel, and an external fabric-supporting wing extending transversely from the delivery portion of said tube in the same direction and in substantial alinement with said tongue, com-

5 bined with an edge-turning scroll in overlapping relation with and spaced from the delivery end of said strip-folding tube and provided with a fabric-supporting wing overhanging the delivery end of said channel and disposed in substantial alinement with the lower member of said scroll.

10 5. A sewing machine guide comprising a base-plate, an edge-guide extending above the face of the same, a strip-folding tube extending across and above said edge-guide and formed with a channel with its marginal portions overlapped at the delivery end and separated by a tongue extending from the closed edges of said portions toward their junction and terminating in turning edges embracing said tongue and inclined to the length of the channel, and a superposed edge-turning scroll mounted upon said base-

plate and spaced above said strip-folding tube. 20

6. In a sewing machine, the combination with stitch-forming and feeding devices, of a guide comprising a strip-folding tube having a channel with its marginal portions overlapped at the delivery end and separated by a tongue extending from the closed edges of said portions in the direction of feed, said tube terminating in forwardly inclined turning edges upon opposite sides of said tongue. 25 30

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

ALBERT H. DE VOE.

Witnesses:

H. J. MILLER,

H. A. KORNEMANN, Jr.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
