(No Model.) 2 Sheets—Sheet 1.

P. SCHOEN.

PLAITING ATTACHMENT FOR SEWING MACHINES.

No. 529,420. Patented Nov. 20, 1894.

Fig. 1.

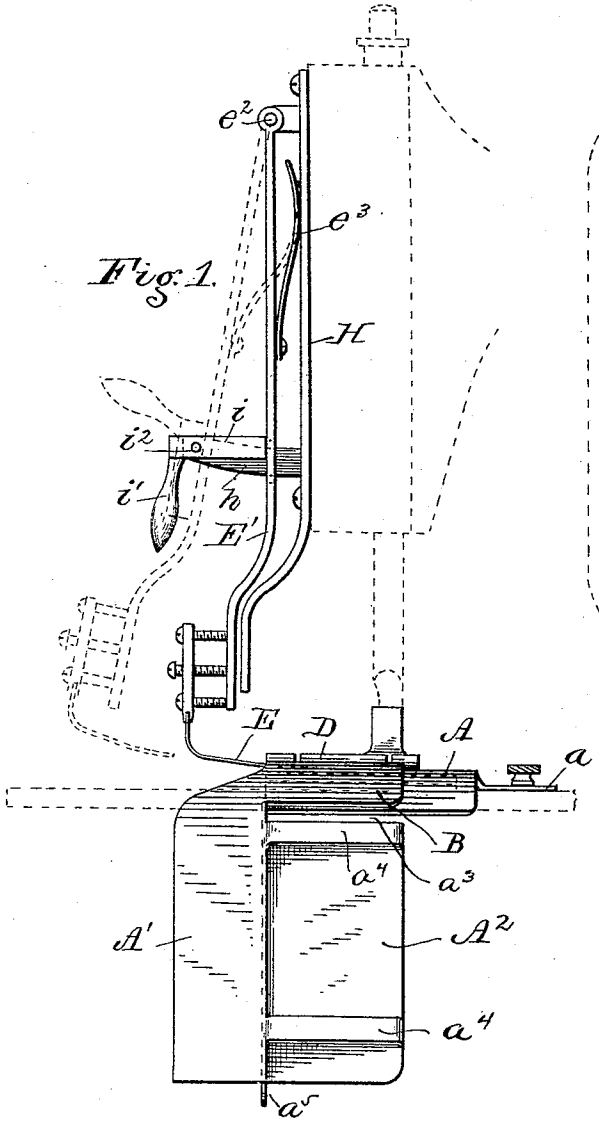


Fig. 3.

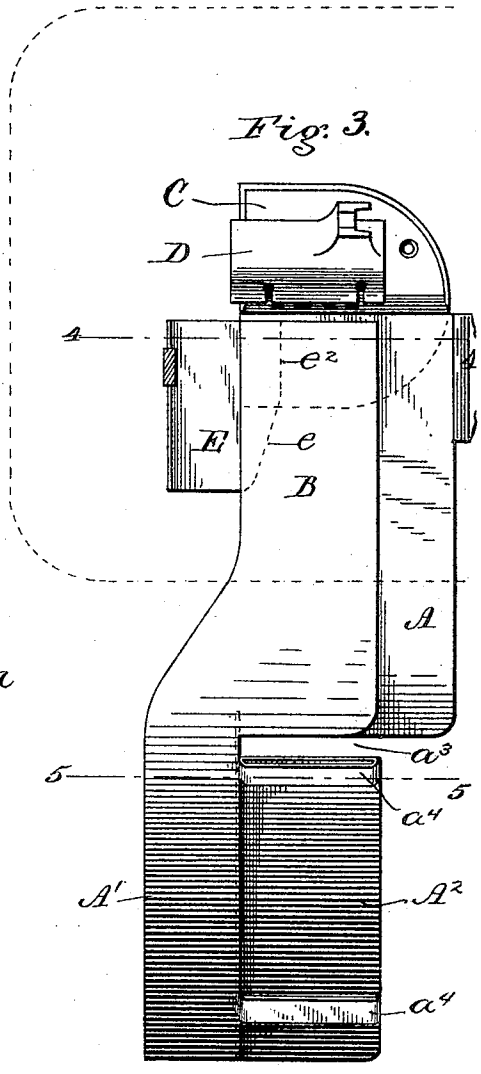


Fig. 4.

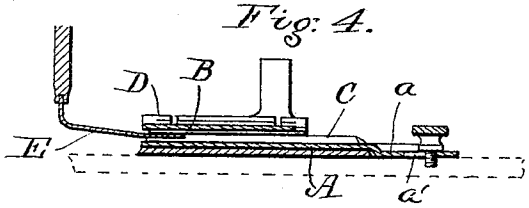
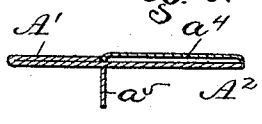


Fig. 5.



Witnesses:
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C. M. Sweeney.

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by Henry Calvert
Attorney.

(No Model.) 2 Sheets—Sheet 2.

P. SCHOEN.

PLAITING ATTACHMENT FOR SEWING MACHINES.

No. 529,420. Patented Nov. 20, 1894.

Fig. 2.

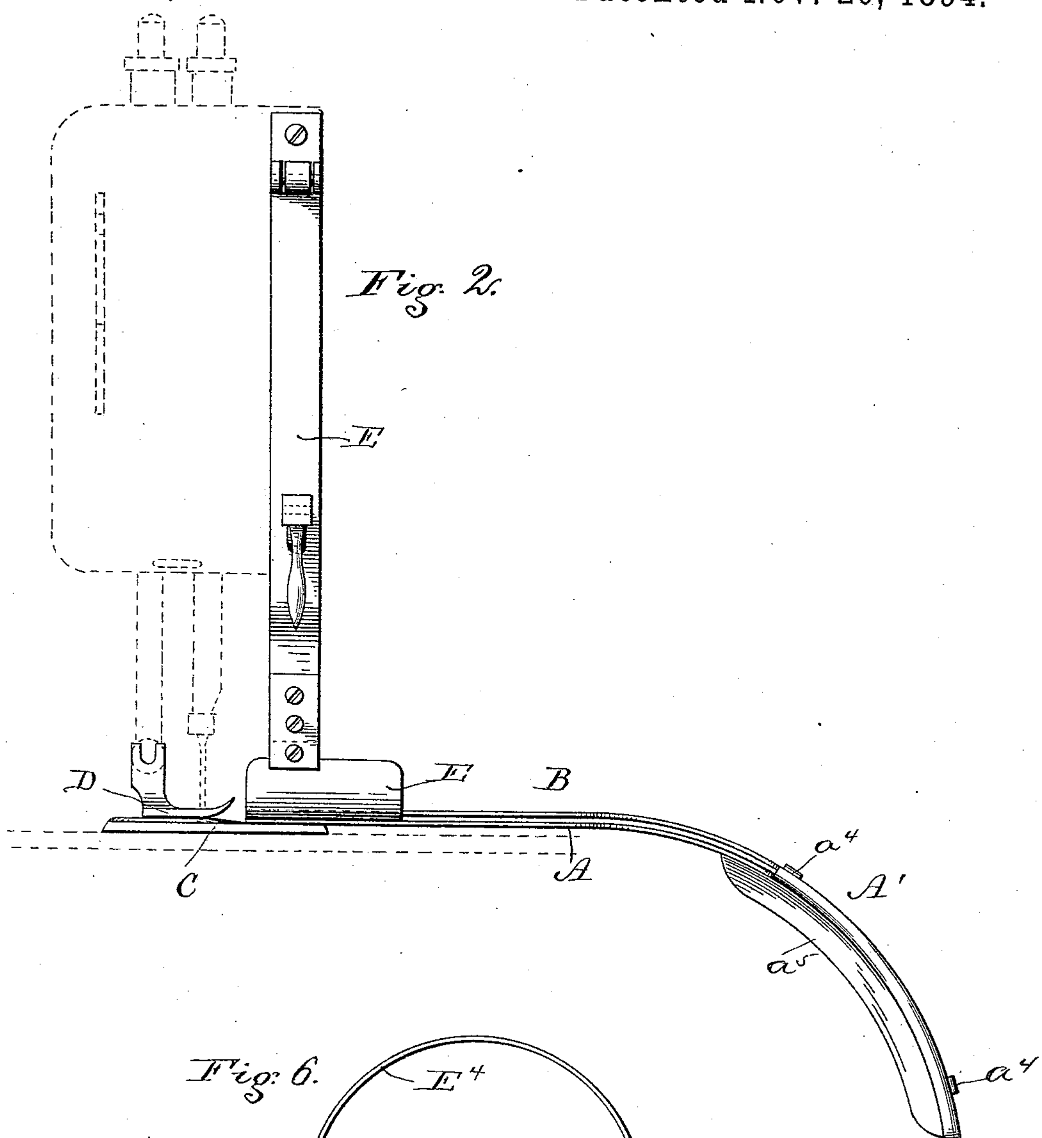


Fig. 6.

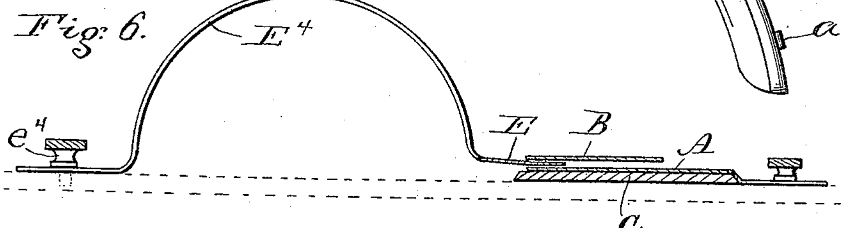


Fig. 7.

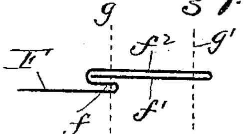
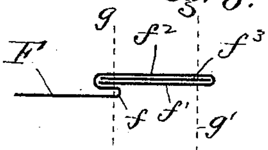


Fig. 8.



Witnesses:

C. M. Sweeney

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by Henry Calver, Attorney.

UNITED STATES PATENT OFFICE.

PAUL SCHOEN, OF GLENS FALLS, NEW YORK, ASSIGNOR TO THE SINGER MANUFACTURING COMPANY OF NEW JERSEY.

PLAITING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 529,420, dated November 20, 1894.

Application filed March 22, 1894. Serial No. 504,703. (No model.)

To all whom it may concern:

Be it known that I, PAUL SCHOEN, a citizen of the United States, residing at Glens Falls, in the county of Warren and State of New York, have invented certain new and useful Improvements in Plaiting Attachments for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an attachment for sewing machines by the use of which goods may be so folded that a hem or wide plait may be made at one edge thereof in goods which are not alike on both sides, but with the goods so folded that the right side thereof will properly appear in the finished work, the goods thus folded being so guided to the needle or needles of a sewing machine that the plait or hem may be properly stitched. My attachment also comprises a strip guide whereby, when desired, a stiffening strip may be guided inside of the folded hem or plait, to stiffen the latter in the finished work.

My attachment is particularly useful in connection with striped goods in which it is essential that the rows of stitches should be parallel with the stripes.

In the accompanying drawings Figure 1 is a front elevation illustrating my attachment in operative relation to a sewing machine, the head of which is denoted by dotted lines. Fig. 2 is a side view of my improved attachment in operative relation to the throat-plate and presser-foot of a sewing machine, looking from the left hand end of the sewing machine. Fig. 3 is a plan view of my attachment and of the throat-plate and presser-foot of a two-needle sewing machine. Figs. 4 and 5 are cross sections of the attachment on lines 4—4 and 5—5, respectively, of Fig. 3. Fig. 6 is a sectional view illustrating a different device for supporting the plaiter blade than that shown in Fig. 1. Fig. 7 is a diagrammatic view illustrating the work performed with my attachment, and Fig. 8 is a similar view showing the plait or wide hem with a stiffening strip inclosed therein.

A denotes the base-plate of the attachment provided with an arm *a* having a slot *a'* for the reception of a set screw by which the attachment may be adjustably secured to the work-plate of a sewing machine. Supported above the base-plate A and extending longitudinally in the direction in which the goods are to be fed is a tongue, or fold former, B, which is of a width corresponding to the width of the hem or plait to be formed, and beneath which tongue the goods are inserted and over which they are folded in the use of my attachment.

In the form of my invention herein illustrated the tongue B is shown as being attached at one side of its forward end to an off-set downwardly curved forward extension A' of the base plate A, said downwardly curved extension being provided on its under side with a flange a^5 to serve as a guide for the edge of the goods to be passed beneath it, and said flange being in line with the outer or left hand edge of the said tongue. A portion A^2 of the extension A' is separated from the base-plate A by a slot or opening a^3, said portion A^2 being provided with loops a^4 to adapt the same to serve as a guide for a stiffening strip to be passed beneath the tongue B, and thus to be enveloped in the fold of the material passing above and below said tongue.

My improved attachment is secured in position on the sewing machine with its forward end just in front of the feed openings in the throat plate C, and just in front of the toe of the presser foot D, as shown in Figs. 2 and 3, and in practice my said attachment is more particularly intended for use with a two-needle sewing machine so that two rows of stitches may be formed near the opposite edges of the plait or wide hem which is to be guided to the needles of the machine.

E denotes a plaiting blade having a diagonal or inclined guiding edge *e* and a straight guiding portion *e'*, said plaiting blade E being so adjusted with relation to the tongue B and the outer or left hand needle of the machine that the fold *f* in the fabric F, formed by said plaiting blade, will be so guided to the sewing machine that the said fold will be caught by stitches denoted by the dotted line *g* Figs. 7 and 8, the body of the goods F passing beneath said plaiting blade; and to this end it is essential that the latter be supported above the work-plate of the machine and in such a manner that it may be swung out from beneath the tongue B when the work is to be

introduced, and then swung inward to the position shown in Figs. 3 and 4 when the attachment is in operation. To this end I have shown said plaiting blade as being adjustably attached to a swinging arm E′ pivotally supported at e^2 to an attaching plate H which latter is to be secured in any suitable manner to the head of the sewing machine, said arm E′ being pressed outward by a spring e^3 and being held in working position by a latch i provided with an operating handle i' and pivoted at i^2 to a projection h on the supporting plate H. When the latch i is turned to the position shown by the dotted lines in Fig. 1, the spring e^3 will force the arm E′ outward to the position shown in dotted lines, and thus remove the plaiting blade E from the work. This particular supporting device for the plaiting blade is, however, not of my invention, and any equivalent means of supporting the same above the work-plate may be employed, as, for example, such as is shown in Fig. 6 where the plaiting blade E is represented as being carried by a curved arm E^4 pivotally attached at e^4 to the work table of the machine, so as to be capable of a horizontal swinging movement, the space beneath the said curved arm permitting of the passage of the work.

In the use of my improved attachment the edge portion f' of the goods is inserted beneath the tongue B, and the goods will then be folded over the said tongue as represented at f^2, Figs. 7 and 8, and the plaiting blade E is then swung into position below the fold f' passing beneath the tongue B, to form the fold f, the edge of the goods being held by the operator against the guiding rib or flange a^5. If it be desired to stiffen the wide plait or hem to be formed by my attachment a stiffening strip f^3 is guided through the loops a^4 on the portion A^2 of the extension A′ of the base plate A above the lower fold f' of the goods which will pass beneath the said portion A^2 of said extension, and the stiffening strip will thus be enveloped or inclosed in the folded goods and will serve to stiffen the finished plait or hem.

While I have shown my attachment as intended for use with a two-needle sewing machine it will be understood that it may also be used in connection with a single needle machine, the particular width of the hem or plait to be formed thereon not being essential; nor is it essential, in the formation of said plait or hem, that the right hand row of stitches, the position of which is denoted by the dotted line g', Figs. 7 and 8, should be formed in the hem, as the left hand row of stitches, the position of which is denoted by the dotted line g, will serve to secure the hem or plait, as will be readily understood.

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

1. A plaiting attachment for sewing machines consisting essentially of a base-plate to be secured to the work-plate of a sewing machine and having an offset, forward extension, as A′, a tongue, B, of metal overhanging said base plate in front of the stitch-forming mechanism of the machine, and of the width of the fold or hem to be formed, said tongue being attached at its forward end at one side to said offset, forward extension and extending longitudinally in the direction in which the goods are to be fed, and a plaiting blade supported above the work-plate of the machine and arranged to extend between the said base-plate and tongue.

2. A plaiting attachment for sewing machines, consisting essentially of a base-plate to be secured to the work-plate of a sewing machine, a tongue of metal supported above said base-plate and of the width of the plait or hem to be formed, said tongue extending longitudinally in the direction in which the goods are to be fed, and a plaiting blade supported above the work-plate of the machine and arranged to extend between the said base-plate and tongue, said base-plate being provided with a forward extension having on its under side a guiding rib or flange for the edge of the goods and which rib or flange is in line with one edge of said tongue.

3. A plaiting attachment for sewing machines, consisting essentially of a base-plate to be secured to the work-plate of a sewing machine, a tongue of metal supported above said base-plate and of the width of the plait or hem to be formed, and a plaiting blade supported above the work-plate of the machine and arranged to extend between the said base-plate and tongue, said base-plate being provided with an extension having on its under side a guiding rib or flange for the edge of the goods, and which rib or flange is in line with one edge of said tongue, and said extension having also a strip guide which is in front of said tongue and which is separated from the body of the base-plate by a slot or opening.

4. A plaiting attachment for sewing machines, consisting of the combination of the base-plate A having the extension A′ provided on its under side with a guiding rib or flange a^5, said extension having also the strip-guiding portion A^2 having loops a^4 and separated from the body of said base-plate by the slot or opening a^3, the tongue B attached to said extension and supported above the said base-plate, and the plaiting blade E arranged to extend, when in operation, between said tongue and base-plate and having an inclined guiding edge.

In testimony whereof I affix my signature in presence of two witnesses.

PAUL SCHOEN.

Witnesses:
ALBERT H. PHELPS,
HARRY L. TURNER.