

(No Model.)

2 Sheets—Sheet 1.

C. H. FOSTER.
SEWING MACHINE GUIDE.

No. 530,173.

Patented Dec. 4, 1894.

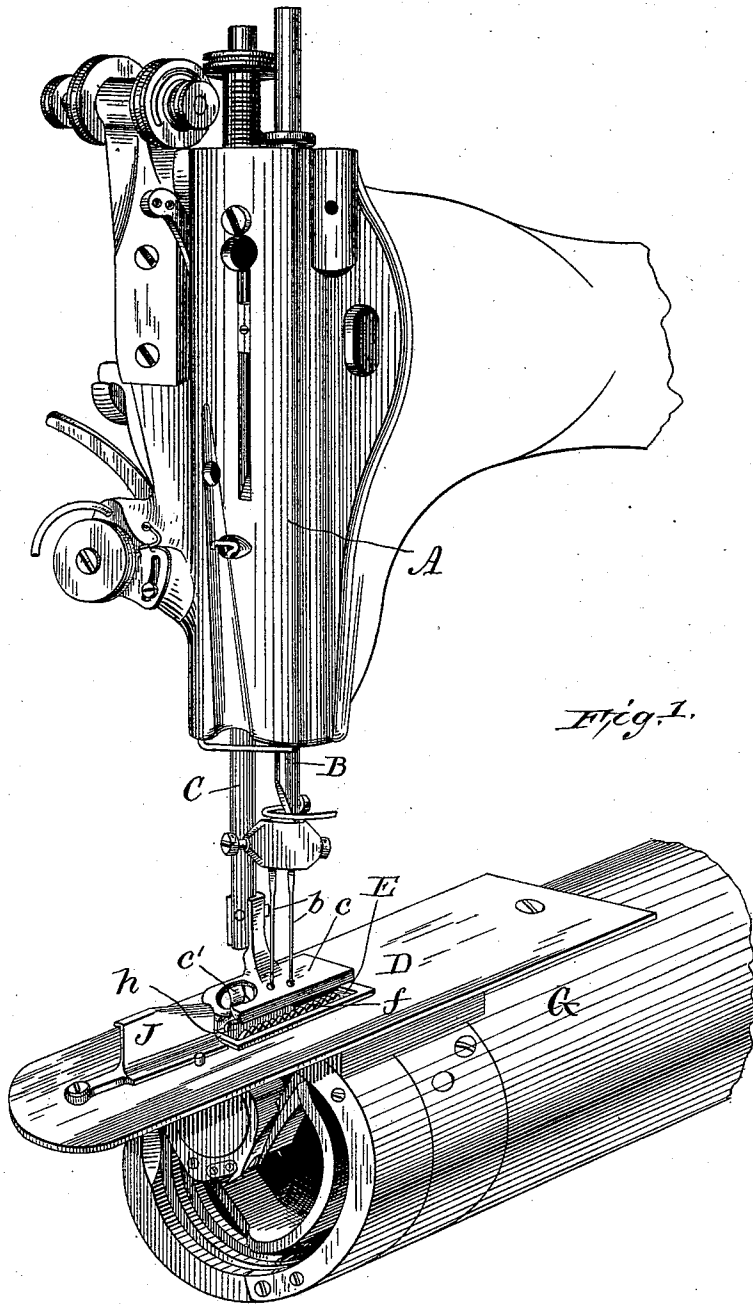


Fig. 1.

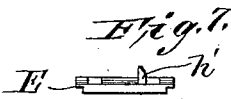
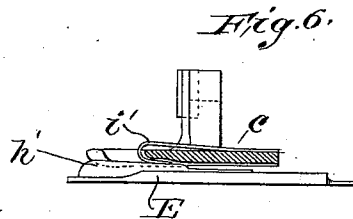
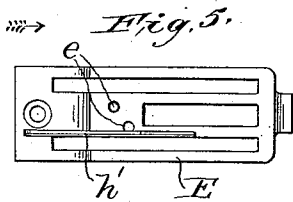
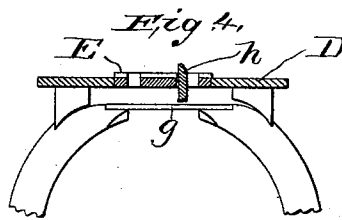
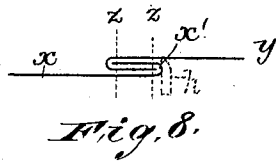
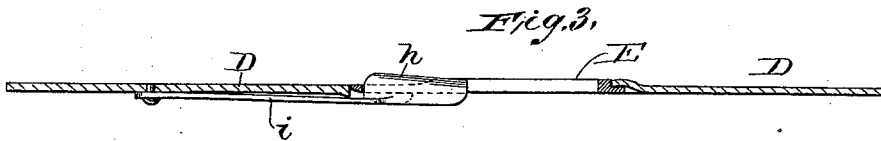
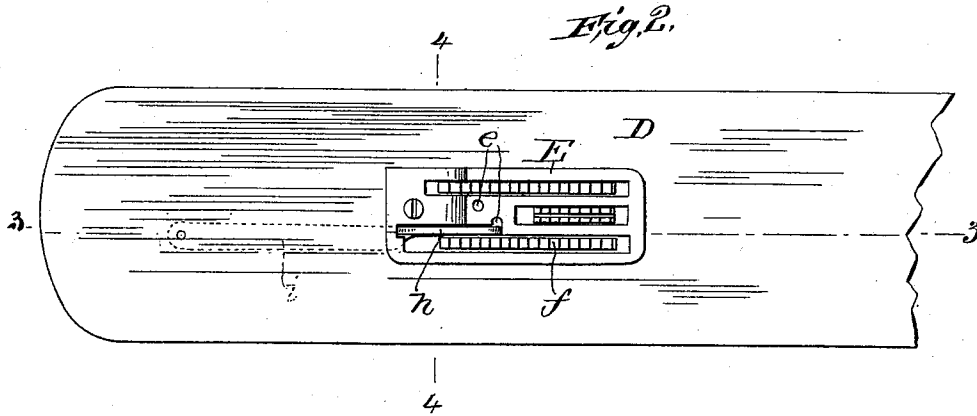
Attest:
C. W. Benjamin
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Attest,
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UNITED STATES PATENT OFFICE.

CHARLES H. FOSTER, OF NEW YORK, N. Y., ASSIGNOR TO THE SINGER
MANUFACTURING COMPANY OF NEW JERSEY.

SEWING-MACHINE GUIDE.

SPECIFICATION forming part of Letters Patent No. 530,173, dated December 4, 1894.

Application filed January 5, 1894. Serial No. 495,793. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. FOSTER, a citizen of the United States, residing at New York, in the county of New York and State of New York, 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.

In joining the edges of two pieces of fabric (as in sewing up the sides of a shirt) by a lap seam known as a "flat fell" secured by two rows of simultaneously formed stitches more or less difficulty is experienced in properly guiding the work; as the folded edge underlying one of the pieces of fabric is apt to run out too far laterally, thus making an imperfect and clumsy seam.

My invention has for its object to obviate the difficulty referred to, and this object I accomplish by providing a guide which projects above the upper surface of the throat plate, and which is placed closely adjacent to the outer side of one of the holes of the throat plate of the two needle machine, said guide extending beneath the presser foot of the machine and co-operating with a double scroll hemmer carried by the said presser-foot. Co-operating with said guide is a spring which serves to prevent the folded edge which runs against the guide from working laterally past the latter when, in the operation of the machine, the presser-foot is lifted slightly at each stitch, said spring being preferably in the form of a spring shank by which the guide is carried so that said guide will be pressed upward toward the under side of the presser-foot and will thus follow the movements of said foot as the latter rises and falls slightly with the feed; but if the said guide be stationary with the throat-plate the spring may be on the presser-foot.

In the drawings, Figure 1 is a perspective view of a portion of a two needle sewing machine with my invention applied thereto. Fig. 2 is a plan view showing the throat-plate, and part of the work-plate of the two-needle machine, with my improved guide in operative position. Fig. 3 is a longitudinal section on line 3—3, Fig. 2, and Fig. 4 is a cross section on line 4—4, Fig. 2. Fig. 5 is a plan view

of a throat-plate with my improved guide made rigid therewith, and Fig. 6 is a longitudinal section of the same and of a presser-foot provided with a spring to co-operate with said guide. Fig. 7 is an end view looking from the left of Fig. 5 and Fig. 8 is a diagram illustrative of the use of my invention.

A denotes the head at the forward end of the bracket arm of the sewing machine.

B is the needle-bar carrying two needles *b*, and C is the presser bar to the lower end of which is attached the presser-foot *c* provided with a double scroll hemmer *c'* of ordinary construction.

D is the work-plate of the machine, and E is the throat-plate provided with the needle-holes *e*, and with suitable slots in which the gripping or serrated parts of the feed dog *f* work, said feed-dog having the usual four-motion movements imparted to it by any suitable means.

Arranged closely adjacent to the line of the outer side of one of the needle holes *e* is the guide *h* which is the principal novel feature of my invention, said guide being preferably carried by a spring-arm *i* attached to the under side of the work-plate D and normally pressing the guide upward toward the presser-foot *c* beneath which said guide extends, the downward movement of said guide, by the pressure of the presser-foot, being limited by any suitable stop, as *g*, forming part of or carried by the arm or cylinder G in which the shuttle and feed mechanisms of the machine work, and thus the upper edge of the said guide will always be above the upper surface of the throat-plate.

Instead of being carried by a spring arm, as just described, the guide may be a rigid part of the throat-plate E, as shown at *h'* in Figs. 5 and 6, and in this form of my invention the presser-foot *c* will be provided with a spring *i'* bearing on the upper edge of said guide, or on the strip of fabric running over the latter, and thus preventing the fold *x'* of the fabric strip *x* from working laterally past the vertical guiding face of the guide *h'*, owing to the fact that the lower surface of said spring remains stationary when, in the operation of the machine, the presser-foot, which supports said spring, has a slight rising and

falling movement imparted to it by the rising and falling feed dog *f*.

When the guide *h* is carried by a spring-arm *z*, as shown in Figs. 2 and 3, said guide will rise and fall with the presser-foot and thus, by preventing any opening from occurring between the upper edge of the guide and the lower surface of the presser-foot, or, more properly, between the upper edge of said guide and the fabric strip *y* overlying the same, any tendency of the folded edge *x'* to work past said guide laterally will be prevented.

I prefer to employ, in connection with the fold guide *h*, a guide *J* which serves to assist in directing the raw fabric edges to the double scroll hemmer *c'*, as fully set forth in my Patent No. 501,930, dated July 25, 1893, but this guide *J* is not positively essential to the successful operation of my present invention.

In the use of my invention the edges of two pieces of fabric to be joined in the manner denoted by the diagram, Fig. 8, are properly guided to the double scroll hemmer by which their edges are interlapped and as said edges pass forward to the two needles the said interlapped edges are joined by two rows of stitches the positions of which are denoted by the dotted lines *z*, the fold *x'* of the fabric section *x* being prevented from running out too far laterally toward the right by the guide *h*.

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

1. The combination with a sewing machine provided with two needles, and a throat-plate, having two needle-holes, of a presser-foot pro-

vided with a hemmer, a guide placed closely adjacent to the line of the outer side of one of the said needle holes and extending beneath said presser-foot, and a spring cooperating with the said guide and serving to prevent the folded edge of the goods from working laterally past said guide when, in the operation of the machine, the said presser-foot is lifted by the feed.

2. The combination with a sewing machine having two needles, and a throat-plate, having two needle-holes, of a presser-foot provided with a hemmer, a guide placed closely adjacent to the line of the outer side of one of the said needle-holes and extending beneath said presser-foot, and a spring shank by which said guide is carried.

3. The combination with a sewing machine having two needles, and a throat-plate having two needle-holes, of a presser-foot provided with a hemmer, a guide placed closely adjacent to the line of the outer side of one of the said needle-holes and extending beneath said presser-foot, a spring shank by which said guide is carried, said spring shank being attached to the under side of the machine work-plate, and said throat-plate having a slot up through which said guide projects, and a stop to limit the downward movement of said guide when the latter is depressed by the presser-foot.

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

CHARLES H. FOSTER.

Witnesses:

J. G. GREENE,
L. L. BURRITT.