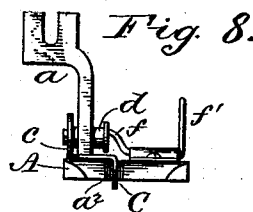
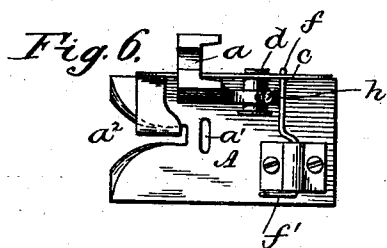
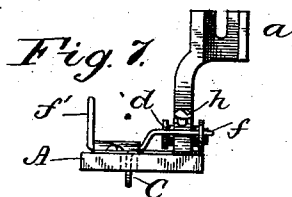
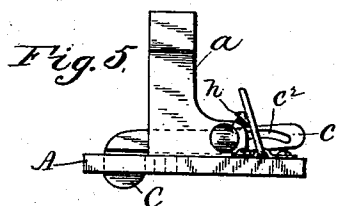
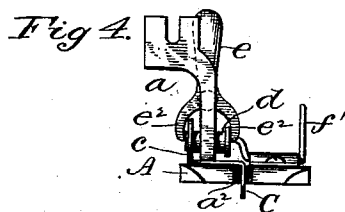
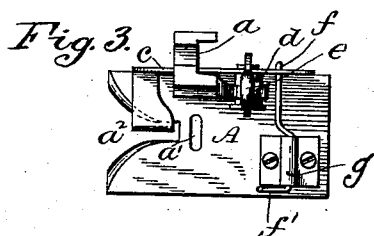
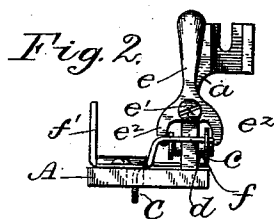
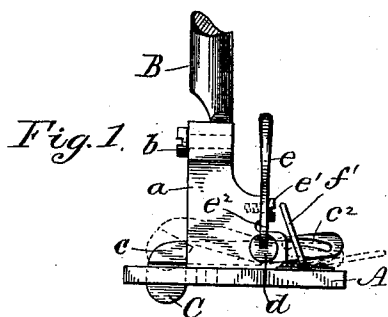


(No Model.)

J. DOUGLAS.
SEWING MACHINE GUIDE.

No. 507,112.

Patented Oct. 24, 1893.



Witnesses
O. S. Crushman.
Cassie M. Smiley.

Inventor:
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UNITED STATES PATENT OFFICE.

JOHN DOUGLAS, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO THE SINGER
MANUFACTURING COMPANY OF NEW JERSEY.

SEWING-MACHINE GUIDE.

SPECIFICATION forming part of Letters Patent No. 507,112, dated October 24, 1893.

Application filed March 11, 1892. Serial No. 424,588. (No model.)

To all whom it may concern:

Be it known that I, JOHN DOUGLAS, 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.

In uniting two pieces of fabric (the edges of which are abutted together so as to form a flat seam) by means of an overseaming mechanism in which the needle has a horizontal movement so as first to enter one section of fabric and then the other, thereby forming a zig zag seam, it is customary to guide the two sections of fabric to the needle by means of a vertical guide or divider which is arranged in front of the needle slot in the presser foot or work plate and about midway laterally of said slot so that the edges of the fabric, both of which are pressed against the said guide or divider, will be properly guided to the stitch-forming mechanism. It is, however, frequently desirable in practice to so direct the two sections of the fabric to the needle that the zig zag seam formed by the latter will have a much deeper engagement from the edge of one section of fabric than it does from the edge of the other, for the reason that if a section of knitted fabric be joined endwise of the wales to another section of knitted fabric the wales of which run parallel with the seam the former section will present very much less resistance to a lateral strain than will the latter; and for this reason the engagement of the stitches should be deeper or farther from the edge of the section the wales of which are transverse to the seam, than from the edge of the section the wales of which are parallel with the seam. To secure this result of an uneven engagement of the horizontally moving needle it is desirable that the vertical guide or divider, which directs the fabric edges to the stitch-forming mechanism, should be adjusted laterally, and my invention has for its object to provide simple and convenient means whereby this result may be effected.

In the preferred form of my invention the vertical guide or divider is applied to a presser foot having a transverse slot for the laterally

moving needle, and the said presser foot is preferably provided in front with a rearwardly converging recess in which the vertical guide or divider, carried by a suitable shank, is arranged. The shank of the said guide or divider is preferably pivoted on a pin supported by a portion of the presser foot so that the shank of the guide or divider may be turned on its pivot to raise the said guide or divider out of the way when not required for use; and the said pin carrying the said shank is made laterally movable in its bearing for the purpose of adjusting the said guide or divider laterally relative to the transverse needle slot.

The lateral adjustment of the pin, and of the guide or divider carried thereby, is preferably effected by a small hand lever held in position after adjustment by a set screw, or by any other suitable means.

Figure 1 is a side view of a presser foot attached to the lower end of a presser bar and provided with my adjustable guide or divider. Fig. 2 is a rear end view thereof, the presser bar being omitted. Figs. 3 and 4 are plan and front end views, respectively of the same. Fig. 5 is a side view of a slightly modified form of my invention, and Figs. 6, 7, and 8 are plan, rear and front end views, respectively, of same.

A denotes the presser foot consisting, as herein shown, of a flat piece of metal provided with a shank *a* for attachment to the presser bar B by a set screw *b*. The plate A is provided with a transverse needle slot *a'* and, in front of said needle slot, the said foot has a rearwardly converging recess *a''* the side walls of which are chamfered off to form rather sharp lower edges which serve to straighten out or uncurl the edges of knit fabric to be presented to the needle. C denotes a vertical guide or divider which is arranged in the recess *a''* in front of the needle slot *a'* and in a line between the ends of the said slot. The said guide or divider consists of a thin lip formed integral with or attached to a thin metallic shank *c* which is attached to a pin *d* having a bearing in the rear portion of the presser foot shank *a*; the said pin being of a suitable length so as to be adapted to be moved laterally in its bearing to adjust the guide or divider C laterally in the recess

a^2 of the presser foot. This lateral adjustment of the pin d is preferably effected by a small hand lever e pivoted on a screw e' tapped in a portion of the shank a . The said lever has arms e^2 engaging the ends of the pivot pin d , as very clearly shown in Figs. 2 and 4. By loosening the set screw e' the hand lever may be readily moved to adjust the pin d sidewise, as may be desired; and by again tightening the set screw said pin and lever will be secured in place after the desired adjustment has been effected; or, if desired, a small spring washer of ordinary construction may be employed to secure proper frictional bearing between the said hand lever and its pivot screw, so that the latter need not be loosened to effect the adjustment of the lever and of the pin d .

The shank c of the guide or divider C , being made of thin metal (preferably steel) is sufficiently elastic to permit the said guide or divider to yield slightly when pressed upon the work plate by the pressure of the presser bar spring, and the said shank is preferably provided at its rear end with a cam slot c^2 in which a small crank f having a shaft or portion attached to the presser foot A by a plate g in which the said shaft or portion is pivoted and which is provided with a handle f' which may be turned from the position shown in full lines to that shown in dotted lines in Fig. 1, to operate the crank f and thus lift the guide or divider C out of working position, as indicated in dotted lines in said figure, when it is not required for use.

When the guide or divider C is in working position the crank f is in such position as to hold the same in place, being just past or slightly forward of a vertical line, as denoted by the position of the handle f' in Figs. 1 and 5.

Instead of effecting the adjustment of the pivot pin d by the hand lever E , for the purpose of moving the guide or divider C laterally, the said hand lever may be omitted, as in the form of my invention shown in Figs. 5, 6, 7, and 8, in which case the lateral adjustment of the said pin is effected by the thumb and finger of the operator when the set screw h has been loosened, after which the said set screw will be tightened for the purpose of securing the said pin in place.

From the foregoing it will be apparent that the guide or divider C , which is to direct the abutted edges of fabrics to be united by an overseaming or zig-zag stitch, may be readily and conveniently adjusted laterally relative to the needle slot for the purpose of causing unequal engagement of a horizontally moving needle with the two sections of fabrics to be united with their edges abutted; or the said guide or divider may be adjusted to a central position relative to the horizontal movements of the needle when the zig-zag seam is to have an equal engagement with both sections of fabric to be united.

Having thus described my invention, I

claim and desire to secure by Letters Patent—

1. The combination with a presser foot provided with a transverse needle slot, and with a rearwardly converging recess in front of said slot, of a laterally adjustable guide or divider arranged in said recess in front of said slot and in a line between the ends of said slot.

2. The combination with a presser foot provided with a transverse needle slot, of an edge guide or divider arranged in front of said needle slot, a pivoted shank by which said guide or divider is carried, and a device, engaging said shank, for raising said guide or divider relative to the presser foot and for positively holding it in a lifted position when it is not required for use.

3. The combination with a presser foot provided with a transverse needle slot, of an edge guide or divider arranged in front of said slot and in a line between the ends thereof, and provided with a rearwardly extending shank, a laterally adjustable pin to which the said shank is attached, and a hand lever for adjusting the said pin.

4. The combination with a presser foot provided with a transverse needle slot, of an edge guide or divider arranged in front of said slot and in a line between the ends thereof, and having a shank the rear end of which is provided with a slot, a pin on which said shank is pivoted, and a movable crank arm or device engaging the said slot, to depress the rear end of said shank and thereby lift said edge guide or divider from its working position.

5. The combination with the presser foot A provided with the shank a , the transverse needle slot a' and the rearwardly converging recess a^2 in front of said slot, of the edge guide or divider C arranged in said recess and provided with a rearwardly extending shank c , the laterally adjustable pin d to which the said shank is attached, and the hand lever E for adjusting said pin and provided with the arms e^2 engaging the opposite ends thereof.

6. The combination with the presser foot A provided with the shank a , the transverse needle slot a' and the rearwardly converging recess a^2 in front of said slot, of the vertical edge guide or divider C provided with the rearwardly extending shank c having at its rear end a slot c^2 the pin d on which the said shank is pivoted, and the crank arm f engaging the said slot c^2 and having a shaft or portion provided with a handle f' by which it may be turned to lift the said edge guide or divider from its working position.

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

JOHN DOUGLAS.

Witnesses:

PHILIP DIEHL,
J. G. GREENE.