

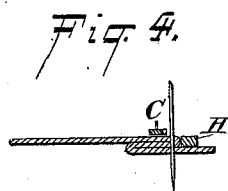
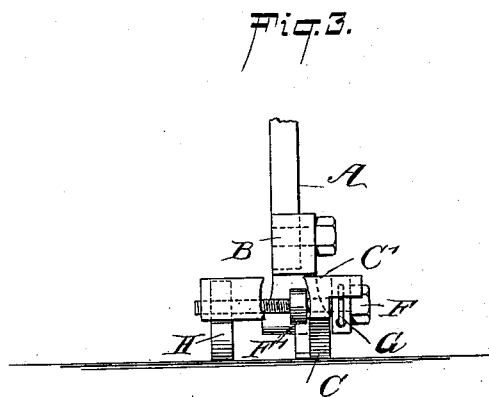
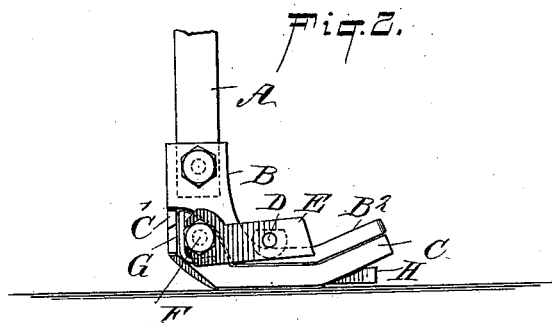
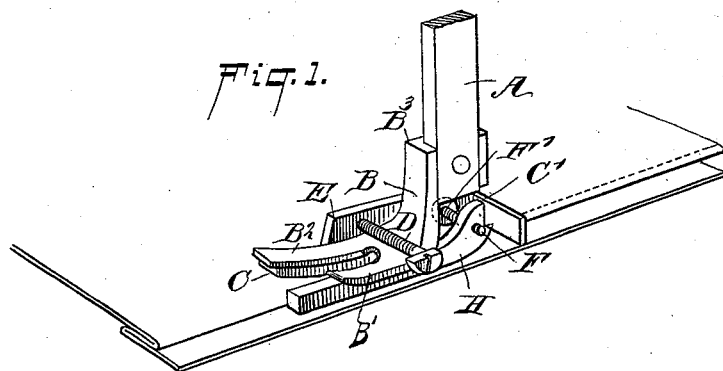
(Model.)

F. B. ALMY.

PRESSER FOOT ATTACHMENT FOR SEWING MACHINES.

No. 523,827.

Patented July 31, 1894.



WITNESSES:

William Goebel.
C. Sedgwick.

INVENTOR

F. B. Almy
BY Munn & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

FERDINAND B. ALMY, OF PROVIDENCE, RHODE ISLAND.

PRESSER-FOOT ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 523,827, dated July 31, 1894.

Application filed July 19, 1893. Serial No. 480,892. (Model.)

To all whom it may concern:

Be it known that I, FERDINAND B. ALMY, of Providence, in the county of Providence and State of Rhode Island, have invented a new and Improved Presser-Foot Attachment for Sewing-Machines, of which the following is a full, clear, and exact description.

The invention relates to a presser foot attachment for sewing machines, said attachment being similar in operation to the presser foot shown and described in the Letters Patent of the United States No. 419,303, granted to me under date of January 14, 1890.

The object of the present invention is to provide an attachment similar in operation to my patented presser foot, that will be capable of being secured to presser feet of various widths and thicknesses, and will thus enable a presser foot of any of the usual patterns to perform the same function as my above mentioned patented presser foot.

The invention consists principally of an adjustable clamping device whereby the attachment may be secured to a presser foot, and a toe which is adjustably connected with the said clamping device.

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter described and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improvement as applied. Fig. 2 is a rear side elevation of the same with parts broken out. Fig. 3 is an end elevation of the same; and Fig. 4 is a transverse section of part of the improvement as applied.

In the drawings, I have represented a presser bar A carrying on its lower end a presser foot B bifurcated at its forward end to form the two rigid prongs B' and B² between which passes the needle of the sewing machine.

The attachment consists primarily of a shoe C adapted to fit under the prong B² and formed at its rear end with a transversely-extending arm C' engaging the under side of the socket B³ of the presser foot or a corre-

sponding part at the rear end thereof, as plainly illustrated in the drawings.

The top of the presser foot B in the rear of the prongs B' and B², is adapted to be engaged by a transversely-extending screw D screwing in an arm E, mounted to swing on a transversely-extending spindle F mounted to turn loosely in the shoe C, the said arm E being pressed on at its pivot end by a spring G secured with one end to the said arm and resting with its other end on the arm C', as will be readily understood by reference to Figs. 2 and 3. The parts C, D, E, F, G, constitute a clamp with which is adjustably connected the toe H to be described presently. The clamp is capable of being attached to presser feet of different thicknesses, as the screw D and the arm E are capable of moving toward and from the shoe C, and the spring G will cause the presser foot to be firmly clamped between the shoe C and the screw D. The clamp is also adapted for attachment to presser feet of different widths, by screwing the screw D farther into the arm E or unscrewing it therefrom, as required, it being understood that the presser foot is also clamped between the arm E and the head of the screw. It will be further understood that the presser foot proper does not come in contact with the material and does not perform its usual function except in regard to the guidance of the needle, but this function is performed by the shoe C as will be seen in the drawings.

On the threaded end of the spindle F screws a toe H extending forwardly and adapted to engage, with its inner face, the outer edge of the doubled up part of the material, as plainly illustrated in Figs. 1 and 4. The rear end of the toe H is adapted to engage the transverse arm C' whereby the pivotal movement of the toe on the spindle is limited. Now, by turning the spindle F in its bearings in the shoe C, the toe H is moved transversely, either toward or from the presser foot according to the direction in which the said spindle F is turned. By this arrangement, the distance between the needle and the toe H can be increased or diminished according to the amount of material through which the needle is to pass at the doubled-up portion; it being understood that the amount varies according to

the thickness of the material under treatment.

It is understood that the needle passes through the doubled-up edge of the material a suitable distance from the outer edge thereof, this distance varying according to the thickness of the material under treatment. Now, to bring the needle into the proper position, relative to the outer edge of the doubled-up portion of the material, I use the toe H, which is laterally adjusted by the spindle F according to requirements.

The lateral adjustment of the toe H is necessary, for if it is desired to have the needle pass through a greater amount of material at the folded inner end of the material, as is required when a thicker material is used, then the said toe may be set farther away from the needle so as to enable the needle to take a greater bite in the cloth; and when thinner goods are used, the toe must be set closer to the needle to prevent the needle from taking too deep a bite as to show the stitch on the fair side of the blind seam.

It is understood that the spindle F also forms the fulcrum for the toe H. On the threaded end of the spindle F screws a collar F' facing the front side of the shoe C to hold the spindle F securely in its bearings when the spindle is turned to move the toe H to its proper position.

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

1. A presser foot attachment for sewing machines, comprising a clamp consisting essentially of two parts pivoted to each other, and a spring for forcing the members of the clamp toward one another, and an adjustable

toe having guided movement along one of the clamp members transversely of the clamp, as and for the purpose set forth.

2. A presser foot attachment for sewing machines, comprising a clamp consisting essentially of two parts, a screw spindle forming a pivot for the said parts, and a spring for forcing the members of the clamp toward one another, and a toe connected with the said screw spindle, and having guided movement transversely of the clamp for adjustment in relation thereto, as and for the purpose set forth.

3. A presser foot attachment for sewing machines, comprising a clamp consisting essentially of two parts, a screw spindle having a smooth portion passing loosely through the said parts and forming a pivot therefor, and a spring for forcing the members of the clamp toward each other, means for preventing a longitudinal movement of the screw spindle, and a toe adapted to screw on the said spindle, so as to be adjustable transversely of the clamp, as and for the purpose set forth.

4. A presser foot attachment for sewing machines, comprising a shoe adapted to fit under the presser foot, a spring-controlled arm having a lateral extension adapted to exert a downward pressure on the top of the presser foot, a screw spindle passing through the shoe and forming a pivot for the said arm, and a toe screwing on the spindle which latter also forms a fulcrum for the said toe, substantially as described.

FERDINAND B. ALMY.

Witnesses:

ANNIE M. ALMY,
WALTER B. CROWELL.