

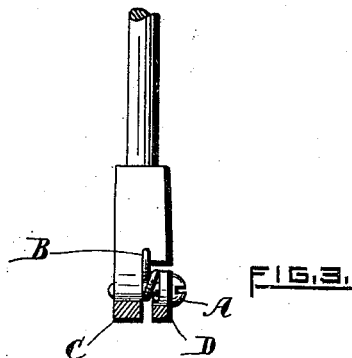
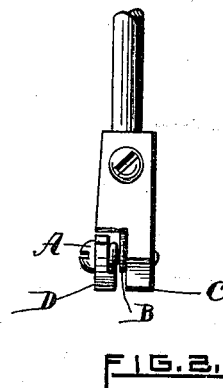
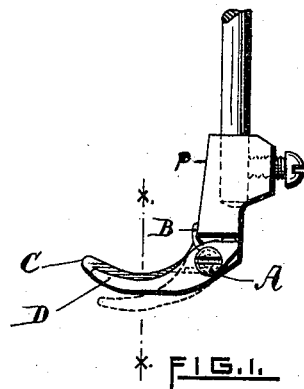
(No Model.)

2 Sheets—Sheet 1.

F. B. ALMY.  
PRESSER FOOT FOR SEWING MACHINES.

No. 419,303.

Patented Jan. 14, 1890.



WITNESSES.

Edward D. Smith  
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INVENTOR.

Ferdinand B. Almy

(No Model.)

2 Sheets—Sheet 2.

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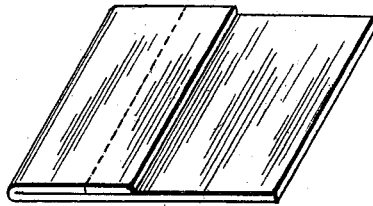


FIG. 8.

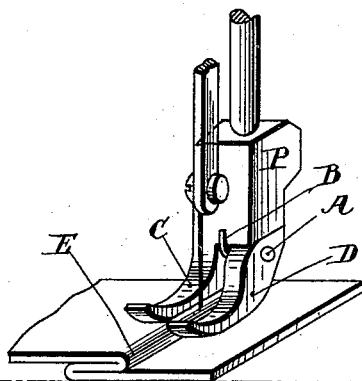


FIG. 5.

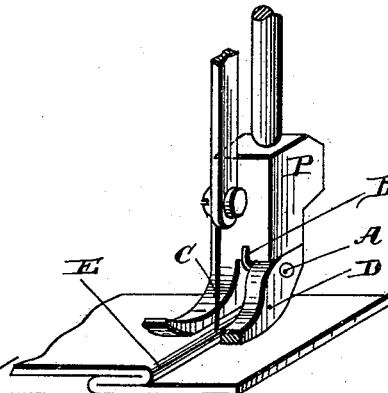


FIG. 6.

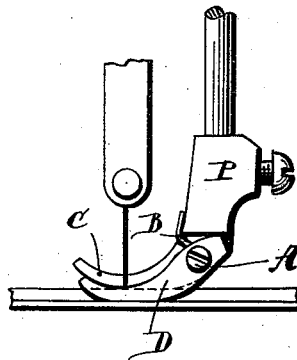


FIG. 7.

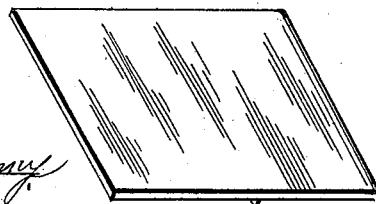


FIG. 9.

WITNESSES:

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*Thomas H. Murphy*

INVENTOR

*Fredman B. Almy*

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# UNITED STATES PATENT OFFICE.

FERDINAND B. ALMY, OF PROVIDENCE, RHODE ISLAND.

## PRESSER-FOOT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 419,303, dated January 14, 1890.

Application filed April 8, 1887. Serial No. 234,161. (No model.)

*To all whom it may concern:*

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

My invention is in the nature of an improvement in presser-feet for sewing-machines, designed mainly to secure a uniform blind seam, stitch, or hem with any thickness of material, and in which the stitches are allowed to show only on one side of the hem, being invisible upon the other side.

The improvement relates to that form of presser-foot in which a movable spring-pressed section or bar is attached to the presser-foot and capable of descending to a lower level than the lower face of the presser-foot proper; and it consists in the peculiar construction and arrangement of a presser-foot bisected longitudinally and having one of its sections pressed downward by a spring and capable of a double adjustment, as hereinafter fully described.

Figure 1 is a side elevation of the improved presser-foot with the lower position of the spring-pressed section indicated by dotted lines. Fig. 2 is a rear view of the same. Fig. 3 is a front view of the two sections of the presser-foot in vertical section through the line  $xx$  of Fig. 1. Fig. 4 is a detail of the spring. Fig. 5 is a perspective view of the presser-foot shown applied to the fabric in forming the blind seam. Fig. 6 is a similar view with the spring-section of the presser-foot broken away to show the passage of the needle through the material in forming the blind seam. Fig. 7 is a side view of the presser-foot in the act of forming the blind seam, and Figs. 8 and 9 are respectively an inside and outside view of the blind seam when formed in the fabric.

Referring to Figs. 1, 2, and 3, the presser-foot is bisected longitudinally, so as to form two sections C and D, of which C is rigid with the presser-foot bar, while D is pivotally connected to C by a screw A, which forms a horizontal axis of articulation. Around this screw and resting between the two sections C and D of the presser-foot are disposed the

coils of a short spiral spring B, Fig. 4, one of whose ends is locked against the rigid part C of the presser-foot and the other of whose ends is locked against the articulated section D, the tension of said spring being such as to force the articulated section downwardly into the position shown in dotted lines in Fig. 1.

The section D of the presser-foot is offset a short distance from the section C to permit the interposition of the spring, and this section D may be adjusted laterally toward section C by simply turning up screw A, so that the same devices which render this section D flexible vertically also permit a lateral adjustment to be given to it. The purpose of this adjustment will be explained hereinafter.

In forming the blind seam shown in Figs. 8 and 9 the material is folded upon itself, as shown in Fig. 5. The rigid section C of the presser-foot rests upon the thickened fold, and the spring-pressed section D drops to the lower level of the single thickness of the material, and this material is smoothly fed along by the action of the sewing-machine feed without reference to the thickness of the material, as the section D adapts itself automatically to the same, thus obviating the necessity of having gages of different sizes for the presser-foot. The purpose of the lateral adjustment of the section D can also now be understood, for if it is desired to have the needle pass through a greater amount of material at the bend E, as is required when a thicker material is used, the movable section is to be set farther away from the needle, (see Fig. 6,) so as to enable the needle to take a greater bite in the cloth, and when thinner goods are used the movable section must be set closer to the needle to prevent the needle from taking so deep a bite as to show the stitch on the fair side of the blind seam. This presser-foot possesses the further advantage of having no interruption on its under side to the passage of the cloth, both sections being perfectly smooth on the under side and of substantially equal length and shape. This permits the presser-foot to act as an ordinary presser-foot when on a uniform thickness of cloth, allowing the lower surfaces of both sections C and D in that case to rest in the same plane. This avoids the necessity of having

to remove the presser-foot and put on another in any temporary change from blind-seam work to ordinary work.

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

1. A presser-foot for a sewing-machine, consisting of a rigid section and an articulated section, having a vertical oscillation, lying beside the rigid section, a set-screw passing horizontally through the articulated section, a spiral spring wound about the said set-screw between the sections and having one end locked against the rigid and the other against the movable section, the said set-screw and spiral spring serving the double function of the flexible vertical articulation of the movable section and also the lateral adjustment

of the same, substantially as shown and described.

2. A presser-foot bisected vertically and longitudinally, and having the two parts of substantially equal length and shape, in combination with a set-screw joining the two together, a spiral spring wound about the set-screw between the sections and locked respectively against the sections, the said set-screw and spring serving the double function of flexible vertical articulation for the movable section and the lateral adjustment of the same, substantially as shown and described.

FERDINAND B. ALMY.

Witnesses:

EDWARD D. BASSETT,  
FREDERIC HAYES.