Sept. 24, 1929. A. A. MERRITT 1,729,117

SEWING MACHINE PRESSER FOOT

Original Filed Oct. 13, 1923

Fig. 1.

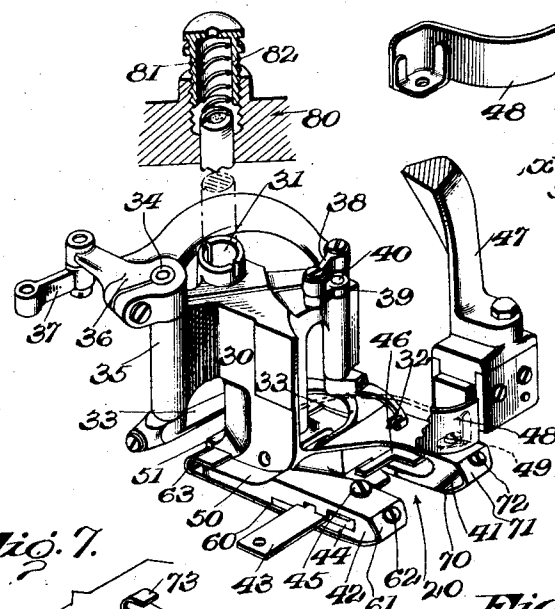


Fig. 11.

Fig. 2.

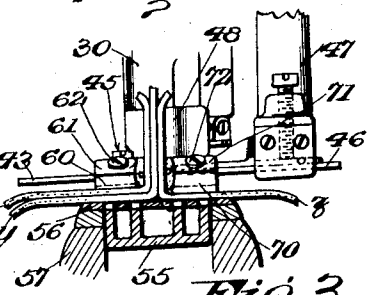


Fig. 3.

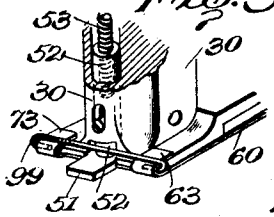


Fig. 4.

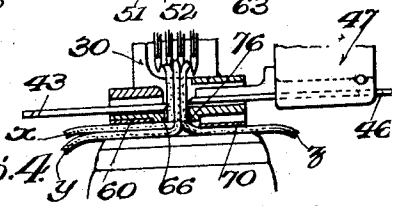


Fig. 7.

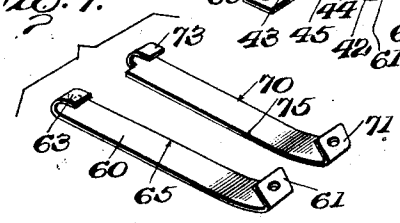


Fig. 5.

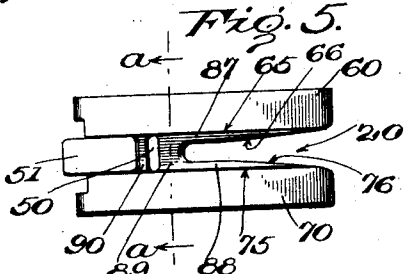


Fig. 8.

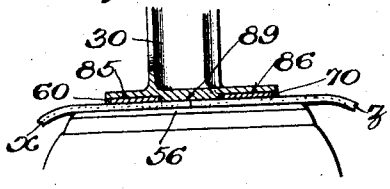


Fig. 6.

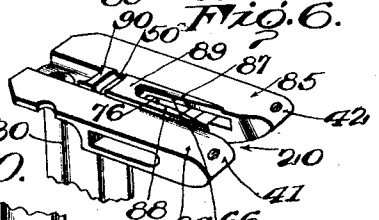


Fig. 9.

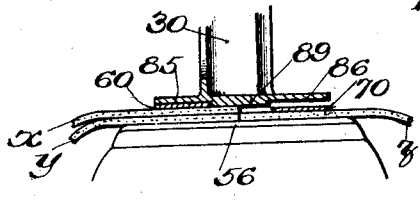
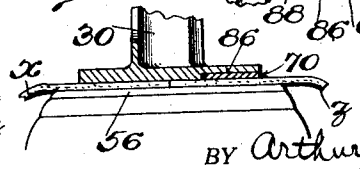


Fig. 10.



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ATTORNEYS

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UNITED STATES PATENT OFFICE

ARTHUR A. MERRITT, OF WORCESTER, MASSACHUSETTS, ASSIGNOR TO WILLCOX & GIBBS SEWING MACHINE COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

SEWING-MACHINE PRESSER FOOT

Application filed October 13, 1923, Serial No. 668,380. Renewed June 30, 1928.

The present invention relates to presser-feet for sewing machines and more particularly to presser-feet of the type having two work contacting bottom springs extending longitudinally of and positioned at opposite sides respectively along the bottom of the foot and thus adapting the same for operating either with equal thickness of fabric under both sides of the foot or with greater thickness under one side, either side, than the other. This type of presser foot including such springs has heretofore been practically and commercially used on what is known as the Willcox & Gibbs Sewing Machine Company's "flatlock machine", shown for example in patents to Stockton Borton, 1,041,574, and to A. A. Merritt, 1,041,652, both dated October 15th, 1912, and producing the seam of Borton Patent 883,614, dated March 31st, 1908.

As heretofore commonly employed the aforesaid bottom springs entirely cover those portions of the bottom surface of the foot proper, or main body of the foot, at opposite sides of the slot in the latter for receiving the upstanding edges of fabric, the inner edge of each spring being shaped to conform to the inner edge of the slot above it so that said inner edge of each spring and the corresponding inner edge of the slot are intended to stand in approximate vertical alinement one above the other. Two pieces or sections of fabric extending horizontally under opposite sides of the presser foot respectively are engaged between the under surfaces of the bottom springs and top surface of the cloth plate and are turned or bent upwardly around the inner edges of the bottom springs to an upstanding position in the aforesaid slot of the foot. Horizontally operating trimmer blades act at or near the inner end of the slot to trim said upstanding edges at a predetermined height as they are fed along the slot. The trimmed edges then pass beneath the bottom surface of the foot at and beyond the inner end of the slot and are thereby forced down into an approximately horizontal plane and compressed and crowded together into approximate abutment. As before stated, the fabric sections may be of equal or unequal thickness under both sides of the foot, unequal thickness more commonly occurring in sewing a plurality of layers or thicknesses to a lesser number of layers or thicknesses, all of the same fabric. But in all cases, whether sewing together equal or unequal thicknesses, the upward turns or bends of the fabric edges to an upstanding position in the slot of the presser foot are around the inner edges of the bottom springs where the latter border the inner edges of said slot, said edges of the springs thus also being relied upon to guide the fabric edges up to or near the point where they are sewed together by the needles near the rear end of the presser foot. Outward lateral pressure is thus imposed upon the bottom springs at their inner edges and particularly so upon a bottom spring which is standing bowed away from the main body of the foot above, as when said spring engages a lesser thickness of fabric than is engaged by the other bottom spring. Such lateral pressure not only imposes a twisting strain upon the springs, rendering them more liable to breakage and wear, but also interferes with their free vertical yielding movement in accommodating themselves to the particular thickness of fabric thereunder, particularly so when one spring is engaging a lesser thickness than engaged by the other spring. The springs being yieldable vertically, and also more or less laterally back of their point of fixation at their forward extremities to the foot body, their edges are unstable and their relationship to each other variable within relatively wide limits. Such conditions tend to and result in irregularities in the trim and in the seam as finally produced at the rear end of the foot.

An important object of the present invention is to utilize—instead of the unstable and movable inner edges of the bottom springs—fixed rigid edges of the foot proper or main body of the foot, along both sides of the slot in said foot body, as the edges about which the fabric edges bend or turn to an upstanding position in the slot of the foot and thus also as the edges which act in conjunction with the upturned edges of the fabric in guiding the latter along the slot of the foot to and

past the trimmer blades.

Rigid fixed edges on the main body of the foot thus employed as the edges about which the fabric turns or bends and by which it is guided, act with more certainty, regularity, and efficiency in controlling the fabric and also in attaining uniformity in the trimming and generally in the formation of the seam. Furthermore, by thus utilizing the presser foot and not the edges of the springs, the springs are not interfered with and are left unhampered in the performance of their primary and normal function of compensating for difference of thickness under opposite sides of the foot.

Other objects of the present invention are to dispense with the hereinbefore mentioned shaping of the inner edges of the bottom springs, to employ springs the edges of which do not reach to the edges of the foot above, to thus employ narrower springs having their inner edges approximately on a straight line from end to end, to thus simplify and cheapen the manufacture of the springs and also render the same more readily and accurately replaceable in case of breakage or wear, and to otherwise improve the construction and functioning of this type of presser foot in its action in producing seams, particularly abutted seams and covering edges of fabric whether of even thickness, or of uneven thickness. These and other advantages of the invention may be understood and can best be had to the accompanying drawings, in which

Figs. 1, 2, 3, 4, 5, 6, 7, 8, and 9 are diagrammatic views illustrating the presser-foot which is shown in the drawings as partly in section on a line approximately indicated by the line 5, Fig. 8 showing the presser-foot in engagement with the fabric and equal thicknesses of fabric under the presser-foot being approximating a single thickness of its

Fig. 10 is a diagrammatic view illustrating a modification, the presser-foot being shown in transverse section on a line approximately indicated by the line a—a of Fig. 5, and

Fig. 11 is a detail view of the trimmings and deflector.

In many particulars of the presser-foot herein illustrated is substantially that of Figs. 46 and 47 of the aforesaid Merritt Patent No. 1,041,652. 30 is the main body of the curely clamped to the lower end of a presser-foot having a split hub 31 adapted to be se-foot bar movable in the head of the machine, a portion of the wall of which is shown at 80 in Fig. 1. The usual spring 81, the tension of which may be adjusted by a screw 82, yieldingly presses the foot against a while permitting vertical vibration in response to upward movement. A cross-thread carrier 32, a curved mounting of these parts the same are substantially the same 46 and 47 of said Merritt hook 33 is removably to the lower end of body 30. A rotatable in the upper end a short arm The lower end

same in construction and operation as arm 643 of Fig. 47 of the aforesaid Merritt Patent 1,041,652, the construction being such that the upper movable blade 46 bears upon the upper surface of fixed blade 43 and, with its arm 47, participates in any upward movement of the presser-foot and of blade 43. To deflect to one side the trimmings removed by the trimmer-blades, a deflector 48 (shown separately in Fig. 11) is pivoted by a screw 49 to toe 41. It may be swung outward on said pivot-screw, from its normal position shown (partly in dotted lines) in Fig. 1, to give access to the thread-manipulating elements.

50 (Figs. 1, 5 and 6) is a needle-opening through the presser-foot, 51 (Figs. 1, 3 and 5) is a chaining-foot positioned in an opening through the foot to the rear of said needle-opening, the same as shown in the patents aforesaid. A stem 52 on said chaining-foot 51 projects upward into a socket of the foot-body 30, and is acted upon by a spring 53 (Fig. 3) to yieldingly hold the chaining-foot to its work. A screw 54 threaded into stem 52 with its head movable in a slot in the wall of 30 limits the movement of the chaining-foot relative to the main foot. Any suitable feed may be used, either single, or double differential, such as shown in the patents aforesaid. Fig. 2 shows a feed-member 55 working through cloth-plate 56 supported by a work-arm 57.

The structure as thus far described in detail is substantially that of the patents aforesaid, and for ordinary uses of sewing machines such as the aforesaid flatlock machine, constitutes a complete and efficient presser-foot. But, in operations upon fabric of materially different thicknesses under opposite sides of the foot—as where the edge of a single thickness of heavy fabric is to be abutted and joined to the edge of a double thickness of the same fabric—the lifting of the foot by the greater thickness of material under one side thereof interferes with the satisfactory engagement of the foot with the lesser thickness of material under the other side thereof, and consequently with the feed of the material or fabric by the feed-means. To adapt said presser-foot to such conditions of different thicknesses, yielding bottom springs of the character and shape hereinbefore stated have been practically and commercially used prior to the present invention, said bottom springs being in the form of an attachment, or attachments, removably applicable to a presser-foot such as hereinbefore described in detail.

60 is the bottom spring extending beneath the left-hand side of the foot proper lengthwise thereof. It is made of a flat strip of spring metal, preferably steel, slightly bowed between its ends and bent over at its ends, similar to the runner of a boy's sled. The forward bent end 61 fits toe 42 of the foot and is secured thereto by a screw 62. The hooked rear end 63 engages about the rear edge of the foot proper forming a loose connection thereto allowing freedom of longitudinal movement as the bowed portion of the spring between its extremities is flattened more or less toward the bottom surface of the foot proper by engagement with fabric thereunder. Said rear end connection of the bottom spring also permits limited freedom of lateral movement. In addition to thus providing for attachment of the flat-spring bottom member to the foot proper, the rounded surfaces formed by the bending of the spring at both ends 61 and 63 avoids angular edges to be passed by the material or fabric in its advance under the foot. As shown, the inner edge 65 of the work contacting portion of the bottom spring 60 is straight from end to end, is not shaped to conform to the inner edge 66 (Fig. 5) of the toe 42 of the foot proper or main body of the foot along the slot 20, and does not reach inward to said edge 66 but stands a considerable distance back from it. In other words, the bottom spring 60 is substantially narrower than the bottom surface of the toe or branch 42 of the foot proper which lies at one side of the slot 20. At its rear end the straight inner edge 65 of the bottom spring 60 just clears one end of the needle opening 50 and closely parallels one side edge of the chaining foot 51. Furthermore, said inner edge 65 of the bottom spring is parallel to the outer edge thereof so that said spring can be readily and cheaply made from a strip of metal of uniform width throughout, the only shaping required being at the bent over ends 61 and 63.

70 is a similar bottom spring extending beneath the right-hand side of the foot proper lengthwise thereof, secured at its forward bent end 71 to toe 41 by a screw 72 and at its rear hooked end 73 making loose connection to the rear edge of the foot proper, affording freedom of longitudinal and limited lateral movement relative thereto. As in the case of bottom spring 60, the inner edge 75 of the work contacting portion of the bottom spring 70 is straight from end to end, is not shaped to conform to the inner edge 76 (Fig. 5) of the toe 41 of the foot proper or main body of the foot along the slot 20, and does not reach inward to said edge 76 but stands a considerable distance back from it. In other words, the bottom spring 70 is substantially narrower than the bottom surface of the toe or branch 41 of the foot proper which lies at one side of the slot 20. At its rear end the straight inner edge of the bottom spring 70 just clear one end of the needle opening 50 and closely parallels one side edge of the chaining foot 51. Furthermore (as in the case of spring 60), said inner edge 75 of bottom spring 70 is parallel to the outer edge thereof so that said spring can also be readily and cheaply made from a strip of metal of uniform width

throughout, the only shaping required being at the bent over ends 71 and 73.

What may be termed the foot spring shoe hook 99, consists of a rod hooked at both ends into engagement with the hooks 63 and 73 respectively of the flat spring bottom members, as clearly shown in Fig. 3 (omitted in Fig. 1), which permits limited lateral movement of said bottom springs at their rear ends but prevents such movement to an extent sufficient to disengage either of said hooks 63 or 73 from the rear edge of the foot proper.

In the before mentioned commercial presser foot of the "flatlock" machine, with or without bottom springs such as heretofore employed, the entire bottom surface of the main body of the foot, or foot proper, 30—including the parts of said surface covered by the two bottom springs and also the parts thereof between the inner edges of said springs both in front of and in the rear of the needle opening—has all been in the same plane. As shown in the drawing hereof, the bottom springs 60 and 70 cover the portions 85, 86 of the bottom of the foot proper 30 and said surface portions are in the same plane. But in accordance with the present invention the remaining portions of the bottom of the foot proper lying between and not covered by the inner edges of the two bottom springs are so formed as to stand in a plane below or at a lower level than the plane of the surface portions 85 and 86, lower to the extent of the thickness of the metal of the bottom springs. In other words, the bottom of the foot proper is longitudinally recessed along its opposite sides to receive the bottom springs 60 and 70 respectively, the depth of each recess being equal to the thickness of its spring. Thus the portions 87 and 88 (Fig. 5) at opposite sides of the slot 20 and along the inner edges of the springs 60 and 70 respectively, the portion 89 lying between the springs across the rear end of the slot 20 and in front of needle opening 50, and the narrow neck portion 90 lying between the inner edges of the springs at the rear of said needle opening and back to the chaining foot 51, are all in the same level or plane which is below the plane of the portions 85 and 86 to the extent of the thickness of the springs. The hereinbefore mentioned edge 66 is the inner edge of the surface portion 87, and the hereinbefore mentioned edge 76 is the inner edge of the surface portion 88. As clearly appears in Fig. 6 the surface portions 87, 88 and 89 together constitute a projection of U or V-shaped formation on the bottom of the foot extending across the closed rear end of the slot 20 and forward along both edges of said slot.

As shown in Figs. 2 and 4, the presser foot is operating upon two thicknesses of material of fabric x and y under the left hand side thereof, to be joined by an abutted seam to a single thickness of material z under the right hand side thereof. The spring pressure exerted by the regular presser foot spring 81, being more powerful than the spring power of either, or both, spring bottoms 60 and 70, the flat bottom spring 60 in engagement with double thickness of material is flattened firmly into contact with the surface 85 of the body of the foot beneath which said spring is positioned. At the same time the bottom spring 70, still slightly bowed outward from the portion 86 of the bottom of the main body of the foot over which said spring is positioned, makes firm yielding engagement with the single thickness of material under the right hand side of the foot, Figs. 2 and 4. The material or fabric so engaged is uniformly advanced under both sides of the foot by the feed (see feed member 55 of Fig. 2 for example) notwithstanding the different thicknesses. As most clearly appears in Fig. 4, the turn or bend of the single thickness of fabric z from the horizontal position of the main body thereof to the upstanding position of the edge thereof in the slot of the presser foot, is around the rigid, unyielding and stable edge 76 on the foot proper or main body of the foot. Likewise, the turn or bend of the two thicknesses of fabric x and y from the horizontal position of the main body thereof to the upstanding position of the edges thereof in the slot of the presser foot, is primarily and substantially around the rigid, unyielding and stable edge 66 on the foot proper or main body of the foot, exerting no material lateral outward pressure against the inner edge of the bottom spring 60. The utilization of such rigid edges 66 and 76 on the main foot body, in preference to the inner edges of the bottom springs, as the edges about which the thicknesses of fabric thus bend or turn, presents material advantages such as hereinbefore mentioned. Edges such as 66 and 76 act with more certainty, regularity, and efficiency in controlling the fabric and guiding the upstanding edges to the trimmer blades, and hence attain greater uniformity in trimming and generally in the formation of the seam. Also, the substantial elimination of lateral pressure against the bottom springs leaves the latter free and unhampered in their up and down yielding movements and hence in the performance of their normal function of compensating for difference in thickness of fabric under opposite sides of the foot.

Obviously, if the two thicknesses of material were under the right hand side of the foot and the single thickness under the left hand side, the action of the flat spring bottom members would be the reverse of that illustrated in Figs. 2 and 4. In thus automatically accommodating itself to differences and variations in thickness of material, the presser foot is enabled to maintain a firm and distributed pressure upon the work against the cloth plate and feed members, and to afford

an even feed at both sides of the seam regardless of differences and variations in the thickness of material.

As shown in Fig. 8, in operating upon like thicknesses of fabric under both sides of the presser foot, both bottom springs are pressed upward firmly into contact with the overlying portions of the bottom surface of the main body of the foot, and the bottom surfaces of both springs and portions 87, 88, 89 and 90 of the bottom surface of the main body of the foot, all stand in the same plane flush with each other. The entire bottom surface under such conditions is practically a continuous flat surface which extends across the line of abutment of the fabric edges both in front of and to the rear of the needle opening and acts to compress, compact or iron down the abutting edges and produce a seam of maximum flatness free of any ridge effect. There is a similar functioning in forming an abutted seam joining greater to lesser thicknesses of fabric, except that in such case the bottom spring in engagement with the lesser thickness of fabric or material stands below the level of the other spring and the bottom surfaces 87, 88, 89 and 90. This is clearly illustrated in Fig. 9, in joining two thicknesses of fabric under the left side of the foot to one thickness under the right side. The bottom spring 60 engaging the two thicknesses x and y is pressed upward into firm contact with the overlying portion 85 of the bottom surface of the main body of the foot, while the bottom spring 70 yieldingly engages the single thickness z at the other side of the foot at a lower level.

It is generally preferable to make a presser foot universally applicable to sewing equal to equal or greater to lesser thicknesses of fabric edges, regardless of which side of the foot is to engage the greater thickness. To that end it is preferable to employ the two flat spring bottom members 60 and 70 at both sides of the foot. But if in operating upon greater to lesser thicknesses of fabric, the lesser thickness is to be regularly presented under the same side of the foot, then the bottom spring may be omitted at the side of the foot which is to regularly engage the greater thickness. Under such condition that portion of the bottom of the main body of the foot not covered by the single bottom spring could, in accordance with my present invention, be so formed as to stand in a plane below that portion of said bottom covered by said bottom spring, the distance below being equal to the thickness of the metal of the spring, as shown for example in Fig. 10 which is a sectional view of a line corresponding to the line a—a of Fig. 5. In other words, in such case, only that portion (85 or 86) of the bottom surface of the foot proper covered by the single spring (60 or 70) would stand at the higher level, the remainder of said bottom surface standing at the lower level.

What is claimed as new is:

1. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric advancing therein; two vertically yieldable flat spring fabric engaging bottom members extending longitudinally beneath the foot body at opposite sides of the slot therein and having their inner edges positioned back under the foot body away from the edges of said slot.

2. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric advancing therein; two vertically yieldable flat spring fabric engaging bottom members extending longitudinally beneath the foot body at opposite sides of said slot therein and each having an approximately straight inner edge positioned back under the foot body away from the edge of said slot therein.

3. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric advancing therein; two vertically yieldable flat spring fabric engaging bottom members each having approximately parallel straight side edges, said spring bottom members extending longitudinally beneath the foot body at opposite sides of the slot therein and each with its approximately straight inner edge positioned back under the foot body away from the edge of the slot therein.

4. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric

advancing therein; a vertically yieldable flat spring fabric engaging bottom member extending longitudinally beneath the foot body at one side of said slot therein and having its inner edge positioned back under the foot body away from the edge of said slot.

5. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric advancing therein; a vertically yieldable flat spring fabric engaging bottom member extending longitudinally beneath the foot body at one side of said slot therein and having a straight inner edge positioned back under the foot body away from the edge of said slot.

6. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric advancing therein; two vertically yieldable flat spring fabric engaging bottom members extending longitudinally beneath the foot body at opposite sides of said slot therein; and bottom surfaces on the foot body one positioned along one edge of the slot between the same and the inner edge of one bottom spring member and the other positioned along the other edge of the slot between the same and the inner edge of the other bottom spring member and both said surfaces being adapted to flush the bottom surface of either or both of said bottom spring members when the same are pressed upward relative to the foot body by engagement with fabric thereunder.

7. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric advancing therein; two vertically yieldable flat spring fabric engaging bottom members extending longitudinally beneath the foot body at opposite sides of said slot therein and each having an approximately straight inner edge; and bottom surfaces on the foot body one positioned along one edge of the slot between the same and the straight inner edge of one bottom spring member and the other positioned along the other edge of the slot between the same and the straight inner edge of the other bottom spring member and both said surfaces being adapted to flush the bottom surface of either or both said bottom spring members when the same are pressed upward relative to the foot proper by engagement with fabric thereunder.

8. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said notch to trim upstanding fabric advancing therein; two vertically yieldable flat spring fabric engaging bottom members extending longitudinally beneath the foot body at opposite sides of the slot therein; and an approximately U-shaped bottom surface on the foot body extending along both sides and across the inner closed end of said slot in said foot body and positioned between the inner edges of said bottom spring members, and said U-shaped surface being adapted to flush the bottom surface of either or both of said bottom spring members when the same are pressed upward relative to the foot body by engagement with fabric thereunder.

9. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said notch to trim upstanding fabric advancing therein; two vertically yieldable flat spring fabric engaging bottom members extending longitudinally beneath the foot body at opposite sides of the slot therein; and each having an approximately straight inner edge; and an approximately U-shaped bottom surface on the foot body extending along both sides and across the inner closed end of said slot in said foot body and positioned between the approximately straight inner edges of said bottom spring members, and said U-shaped surface being adapted to flush the bottom surface of either or both of said bottom spring members when the same are pressed upwardly relative to the foot body by engagement with fabric thereunder.

10. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be ad-

vanced and trimmed before it reaches the stitch forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric advancing therein; a vertically yieldable flat spring fabric engaging bottom member extending longitudinally beneath the foot body at one side of said slot therein; and a bottom surface on the foot body positioned along one edge of said slot between the same and the inner edge of said bottom spring member and adapted to flush the bottom surface of said bottom spring member when the same is pressed upward relative to the foot body by engagement with fabric thereunder.

11. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending reawardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric advancing therein; a vertically yieldable flat spring fabric engaging bottom member extending longitudinally beneath the foot body at one side of said slot therein; and a bottom surface on the foot body extending along both sides of the slot and across the closed inner end thereof, the portion thereof along one side of the slot being positioned between said slot and the inner edge of said bottom spring member, and said surface being adapted to flush the bottom surface of said bottom spring member when the same is pressed upward relative to the foot body by engagement with fabric thereunder.

12. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts, the bottom surface of said foot body being longitudinally recessed along both sides thereof and said foot body having a work engaging bottom surface along the inner edge of each recess and between the same and said slot; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim the upstanding fabric advancing therein; and two vertically yieldable flat spring fabric engaging bottom members attached to and extending longitudinally beneath the foot body along opposite sides thereof and in position to be pressed upward into said recesses respectively by engagement with fabric thereunder.

13. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts, the bottom surface of said foot body being longitudinally recessed along both sides thereof said recesses having straight inner edges and said foot body having a work engaging bottom surface along the inner edge of each recess and between the same and said slot; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric advancing therein; and two vertically yieldable flat spring fabric engaging bottom members attached to and extending longitudinally beneath the foot body along opposite sides thereof and in position to be pressed upward into said recesses respectively by engagement with fabric thereunder, said bottom spring members each having a straight inner edge to conform to the straight inner edge of its corresponding recess of the foot body.

14. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts, the bottom surface of said foot body being longitudinally recessed along both sides thereof and said foot body having a work engaging bottom surface of approximate U-shape conforming to the shape of said slot and with portions thereof extending along the inner edges of the recesses respectively between the same and said slot and with another portion of said bottom surface extending across the inner closed end of said slot; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric advancing therein; and two vertically yieldable flat spring fabric engaging bottom members attached to and extending longitudinally beneath the foot body along opposite sides thereof and in position to be pressed upward into said recesses respectively by engagement with fabric thereunder.

15. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts, the bottom surface of said foot body being longitudinally recessed along one side thereof and said foot body having a work engaging bottom surface along the inner edge of said recess between the same and said slot; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim

the upstanding fabric advancing therein; and a vertically yieldable flat spring fabric engaging bottom member attached to and extending longitudinally beneath the foot body in position to be pressed upward into said recess by engagement with fabric thereunder.

16. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts, the bottom surface of said foot body being longitudinally recessed along one side thereof said recess having a straight inner edge and said foot body having a work engaging bottom surface along the straight inner edge of said recess and between the same and said slot; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim the upstanding fabric advancing therein; and a vertically yieldable flat spring fabric engaging bottom member attached to and extending longitudinally beneath the foot body in position to be pressed upward into said recess by engagement with fabric thereunder.

17. In a presser foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric advancing therein; two vertically yieldable fabric engaging bottom members extending longitudinally of the foot body at opposite sides of the slot therein and having their inner edges positioned back away from the edges of said slot.

18. In a presser-foot, the combination of the foot proper or main body of the foot having a notch or slot extending rearwardly from the forward end thereof and in which upstanding fabric is adapted to be advanced and trimmed before it reaches the stitch-forming parts; a horizontally operating trimming mechanism including relatively movable blades cooperating at their cutting edges in said slot to trim upstanding fabric advancing therein; two vertically yieldable fabric-engaging bottom members extending longitudinally beneath the foot body at opposite sides of the slot therein and having their inner edges positioned back under the foot body away from the edges of said slot.

In testimony whereof I have signed this specification.

ARTHUR A. MERRITT.