J. E. CHALMAN.

PRESSER FOOT FOR SEWING MACHINES.

APPLICATION FILED JAN. 21, 1914.

1,243,809. Patented Oct. 23, 1917.

Fig. 1.

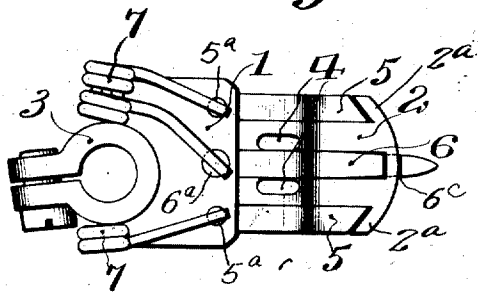


Fig. 2.

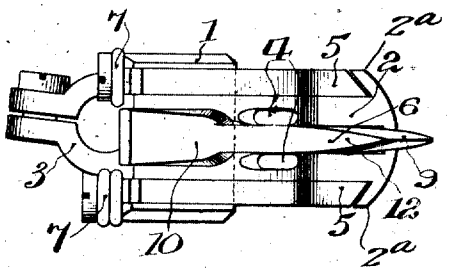


Fig. 3.

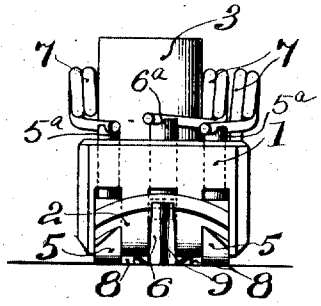


Fig. 4.

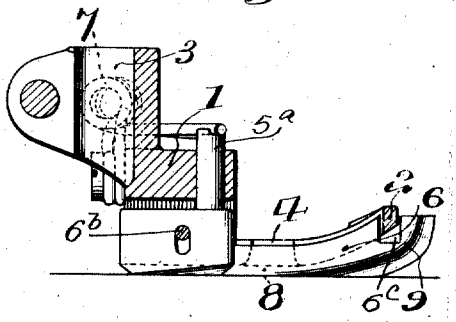


Fig. 5.

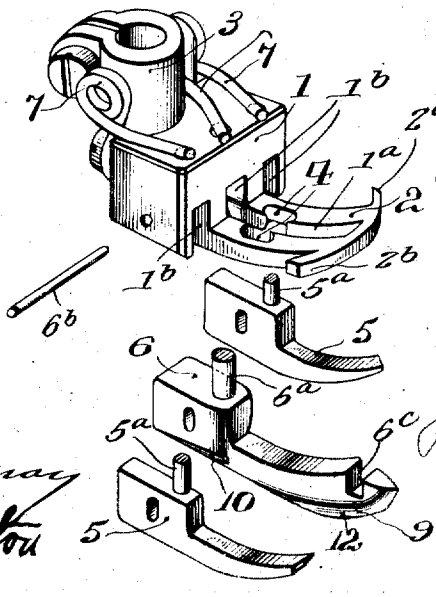
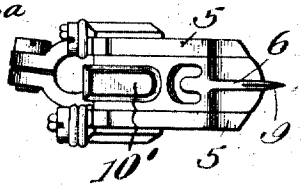


Fig. 6.



Witnesses

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PRESSER-FOOT FOR SEWING-MACHINES.

1,243,809. Specification of Letters Patent. Patented Oct. 23, 1917.

Application filed January 21, 1914. Serial No. 813,491.

To all whom it may concern:

Be it known that I, JOHN E. CHALMAN, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Presser-Feet for Sewing-Machines, of which the following is a description, reference being had to the accompanying drawing and to the figures of reference marked thereon.

My invention relates to improvements in presser feet for sewing machines, and is especially designed for use in connection with a machine of well known type used for covering seams first sewed in the usual manner.

It is customary in the manufacture of knitted garments, to first superpose two fabric edges and seam by a line of straight-away stitching, and then to open out the goods flat, and run them through a twin needle machine and cover the raw edges by the cross or looper thread, the presser foot being provided with a fin or keel which runs in the groove formed by the division line of the fabric, and the raw edges of the fabric are guided by registering projections and grooves on the throat plate and presser foot respectively. Such an arrangement is shown in Patent No. 583,415 of May 25th, 1897.

The purpose of the present invention is to provide a presser foot for use on a machine of the type illustrated, possessing certain novel features as hereinafter referred to and pointed out in the claims, whereby a neater and flatter seam is produced than by the old structure.

In presser feet for use in this operation as they have been heretofore constructed, the fin or keel merges into the bottom of the presser foot, and the seam formed by the two lines of needle thread and under cross thread is kept from forming a ridge or puckering by the action of the throat plate tongue, over which the stitches are formed, but when the stitches slip off the tongue there is nothing to flatten down the seam, which, therefore, bunches up and forms a ridge.

In the present invention I have provided in rear of the kee. of the . ot a central longitudinally extending portion, which in rear of the needles is widened out to bear on the seam and flatten it down to prevent the formation of a ridge, this flattened portion holding the seam directly against the throat plate while the stitches are being formed.

The invention is illustrated in the accompanying drawings, in which,—

Figure 1 is a top plan view of a presser foot embodying my invention;

Fig. 2 is a bottom plan;

Fig. 3 is a front end view;

Fig. 4 is a sectional view;

Fig. 5 is a view illustrating the parts detached; and

Fig. 6 is a bottom plan view of a modified form of my invention.

In these drawings, the body portion of the presser foot is shown at 1, and has the upturned toe portion 2 and the sleeve portion 3, which is clamped to the presser foot shank. It has the usual needle openings 4.

The presser foot, as clearly shown in the drawings, has a body portion 1 which extends forwardly and forms the up-turned toe 2, as above described. This forwardly extending portion is centrally recessed, as at 1^a and has the needle openings 4. The body portion, also, has recesses 1^b, one of which is in line with the central recess and the other two which are at the sides of the central section. There are two side sections 5—5, which are mounted in these side recesses 1^b, and these side sections are carried by suitable sliding rods 5^a which are engaged by springs 7. There is also a central section 6 carried by a rod 6^a, which is engaged by a central spring 7. A pin 6^b passes through a hole in the presser foot and through slots in each of the sections 5 and 6 and limits the downward movement of these sections when the presser foot is raised. The slot 1^a terminates short of the front end of the toe of the foot and the front end of the toe is also extended laterally as at 2^a. The central section 6 is provided with a groove 6^c into which extends the portion of the front of the toe which closes the end of the slot 1^a. This portion merely joins the parts of the body portion of the presser foot and strengthens the same. The sections 5 and 6 are normally pressed downwardly below the level of the bottom of the main portion of the foot against which the goods lie flat.

By this location guiding recesses 8 are formed between the side sections and the central section. The central section 6 extends forward to the front of the foot, and is tapered to form the keel or guide 9, which enters the seam and gradually flattens it out in advance of the needles, extending

from the front of the foot all the way along its bottom. Beginning at a point in rear of the needles, this central section is widened out as at 10, and bears upon the seam, thus holding the fabric fast in rear of the needles against the throat plate while the stitches are being formed, and preventing the cross-stitching thread from drawing the fabric together from one side to the other and making an objectionable ridge.

In Fig. 6 is shown a modification for use on an overseaming machine in which the widened portion 10′ in rear of the needle and corresponding to 10 in the other figures, is independent of the central keel portion, and is used for opening up the seam on an overseaming machine in which the stitches are formed over the tongue 12 in the usual way.

I have found that in the use of this presser foot on a machine for covering seams, the ridging up of the seam between the two needles, and the consequent "ropy" appearance upon garments, especially those of light weight, is entirely obviated.

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

1. A presser foot for sewing machines comprising a body portion having needle openings formed therein, and a yielding guide or keel carried by the presser foot and located centrally between the needle openings in advance thereof and a yielding portion in rear of the openings adapted to bear on the finished seam.

2. A presser foot for sewing machines, comprising a body portion and a central and side portions normally extending below the level of the body portion, said central portion being widened in rear of the needles to bear upon substantially the entire width of the seam.

3. A presser foot for sewing machines comprising a body portion, a central portion yieldingly supported by said body portion and having a guide or keel located in advance of the needle openings in the presser foot, said central portion extending between the needle openings and to the rear thereof and having a widened portion in the rear of the needle openings.

4. A presser foot for sewing machines comprising a body portion having needle openings therein, a central recess extending between the needle openings from front to rear thereof, a central yielding section mounted in said recess and having a widened portion in the rear of the needle openings.

5. A presser foot for sewing machines comprising a body portion having needle openings therein, a central recess extending between the needle openings from front to rear thereof, a central yielding section mounted in said recess and having a widened portion in the rear of the needle openings, and a yielding section at each side of the presser foot.

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

JOHN E. CHALMAN.

Witnesses:
GEORGE TATE,
T. C. FETROW.