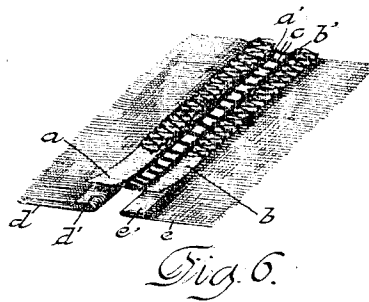
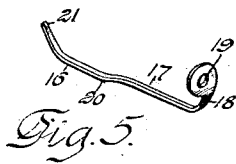
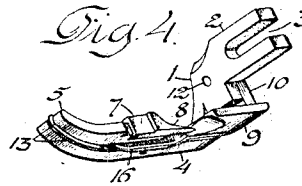
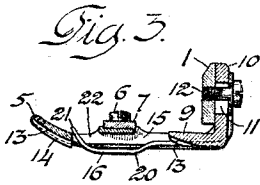
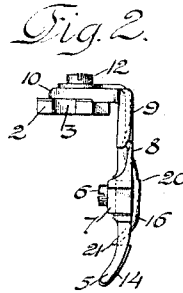
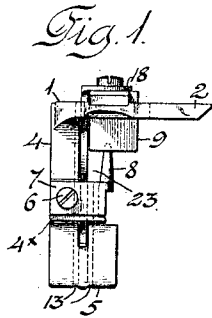


A. GRIEB.
PRESSER FOOT.
APPLICATION FILED JAN. 20, 1909.

955,962.

Patented Apr. 26, 1910.



WITNESSES

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UNITED STATES PATENT OFFICE.

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PRESSER-FOOT.

955,962.

Specification of Letters Patent.

Patented Apr. 26, 1910.

Application filed January 20, 1909. Serial No. 473,220.

To all whom it may concern:

Be it known that I, ALFRED GRIEB, 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 Presser-Foot, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has for its primary object to provide a presser-foot adapted for guiding ribbed insertion upon the margin of the body fabric for the stitching operation.

It is designed more especially for the handling of insertion tapes comprising two strips of fabric with ribbed or corded adjacent edges united at short intervals by cross-threads, somewhat resembling hem-stitch work, the outer edges of which insertion tapes are independently overlapped upon and stitched to the margins of the body fabrics to be joined by overseam stitches embracing the edges of each, and the layers opened out to expose the full width of the insertion tape overlying the marginal portions of the body fabrics upon which it produces the effect of a marginally embroidered box plait.

In its preferred form, the presser-foot is of the style commonly employed in connection with the well-known Singer overseaming machine of the No. 81 class, forming the subject of my pending applications Ser. No. 321,952, filed June 16, 1906, and Ser. No. 368,035, filed April 13, 1907; and it has upon its upturned forward end intermediate the edges a rigid guide rib and a recess in its lower face in which is disposed a spring guide-finger secured to the presser-foot shank at the rear end and having at the forward end an upturned extension passing through a slot in the foot plate adjacent the rearward end of the rigid guide rib and adapted to rest upon the forward end of the same when the presser-foot is raised. By this construction the insertion tape may be led to the stitch-forming mechanism from a point considerably above the forward end of the presser-foot to enable the rigid guide-rib to enter the space intermediate the ribbed or corded edges of the strips comprising such tape in guiding the same to the stitch-forming mechanism, while the yielding guide-finger serves to continue the direction of the insertion tape, but to yield under the action

of the feed-dog to permit the latter to clamp the goods firmly against the lower face of the presser-foot in the feeding operation.

The yielding feature of the guide-rib is of particular importance in cases wherein the thickness of material is substantially different upon opposite sides of the same, as in stitching the second edge of the insertion tape to the second body fabric, as in this operation the unevenness at opposite sides of the guide-finger is such that the feeding is done practically at one side only of the presser-foot, so that the whole available area of the presser-foot and feed-dog are required to perform the normal functions of these members to properly advance the work.

The invention will be understood by reference to the accompanying drawing, in which—

Figure 1 is a plan of the presser-foot, Fig. 2 an edge view of the same taken from the inner side, Fig. 3 a longitudinal section and Fig. 4 a perspective view of the presser-foot from below the same. Fig. 5 is a perspective view of the spring guide-finger detached from the foot. Fig. 6 is a perspective view of a section of insertion work, for which the present foot is designed.

The presser-foot comprises the shank portion 1 with lateral extension 2 containing the slot 3 adapted to receive the fastening screw for securing it to the presser-bar, and is provided at its lower end with the rigid foot-portion 4 having upturned toe portion 5 and cut away rearward of the same at the inner side, or that adjacent the lateral extension 2 of the shank. The foot-portion 4 is provided with the usual transverse seat 4* upon which is secured by means of the fastening screw 6 the shank 7 of the rearwardly extending chaining finger 8 which extends slightly beneath the arched lower or operative face of the auxiliary heel portion 9 whose shank 10 is provided with the vertical slot 11 whereby it is secured for vertical adjustment by the fastening screw 12 to the shank 1 of the primary foot portion. The lower face of the main foot-portion 4 is provided with a longitudinal channel 13 from the bottom of which projects in the upturned toe portion the rigid guide-rib 14 projecting slightly beyond the face of the foot. Rearward of the guide-rib 14, and in line therewith, the main or primary foot portion is provided in its lower face with a

longitudinal recess 15 to receive the yielding forward end portion 16 of a spring guide-finger whose backwardly and upwardly extending shank 17 terminates in a disk or washer 18 formed with an aperture 19 through which passes the fastening screw 12 which serves to clamp the rearward end of the guide-finger upon the rearward face of the shank 10 of the auxiliary presser-foot member 9. The depending operative portion 16 of the yielding guide-finger has at its rearward end an abrupt work-detaining shoulder 20, and has at its forward end an upwardly inclined extension 21 passing through a slot 22 intermediate the seat for the chaining finger shank and the rearward end of the rigid guide-rib 14, so as to rest upon the forward end of said slot as a stop-shoulder when the presser-foot is raised and the yielding guide-finger is permitted to descend to its lowest position under the influence of its own elasticity.

Although the rigid guide-rib 14 and spring guide-finger 16 are independently mounted upon the foot portion, they constitute practically a compound guide-member extending longitudinally of the foot and composed of rigid and yielding sections in tandem arrangement, this guide-member serving to receive the grooved or slotted face of the insertion tape at the forward extremity of the foot and affording a practically continuous guide for the same up to the stitching point.

The insertion tape which the present improvement is designed more particularly to handle comprises two strips *a* and *b* of fabric having corded or ribbed adjacent edges *a'* and *b'*, respectively, connected at intervals by cross threads *c*, the edges being somewhat thicker than the cross threads so as to form a groove or channel entered by the rigid and yielding guide-ribs 14 and 16 of the presser-foot.

In the stitching operation, according to the present improvement, the insertion tape is laid upon the body fabric *d* with the member *a* at one side of its open work upon the margin *d'* of the body fabric, and the parts thus disposed are subjected to the operation of the overseaming machine provided with the presser-foot of the present improvement, the tape being guided to the presser-foot from a point above the upturned forward portion of the latter to enable the guide-rib 14 to enter the channel between the cords *a'* and *b'*, which are further guided intermediate the bottom of the foot portion 4 and feed-dog by means of the yielding guide-finger 16. After this stitching operation is performed, the other member *b* of the tape is similarly lapped upon the marginal portion *e'* of the body fabric *e* and similarly united thereto by an overseam; after which the body fabrics are opened out as repre-

sented in Fig. 6 to present the full width of the insertion tape with its open work portion intermediate the adjacent folded edges of the body fabrics, and the whole in the form of a plait with overseamed or embroidered edges intermediate the two body fabrics.

It will be observed that the chaining finger 8 is disposed at one side of and parallel with the recess 15 and yielding guide-finger 16, and is spaced therefrom in such manner as to form an intermediate needle aperture 23, the operative portion 16 of the guide-finger extending intermediate the rearward end of the rigid guide-rib 14 and said needle aperture at the base of the chaining finger.

As the yielding guide-finger follows to a certain extent the rising and falling movements of the feed-dog, it has been found desirable to form at the rearward end of the operative portion 16 of the guide-finger the work detaining tooth or shoulder 20, which serves to prevent the retraction of the work in case it is not entirely disengaged therefrom in the return of the feed-dog to take a fresh hold for a succeeding feeding action.

As will be observed, the channel or depression 13 in the foot portion 4 is designed to provide clearance, so as to afford an effective thickness for the rib 14 without having to project too far below the operative face of the foot, it being desirable to maintain such rib wholly above the flat lower face of the foot portion, in order that the latter may be permitted to firmly seat itself upon the operative face of the feed-dog for the effective action of the latter upon the work.

Having thus set forth the nature of the invention, what I claim herein is:—

1. A sewing machine presser-foot constructed with a foot portion with upturned forward end and having normally depending below its operative face a compound guide-member extending longitudinally thereof intermediate its opposite edges, said guide-member comprising an upwardly yielding section and a rigid section in advance thereof and extending to the forward end of the foot portion.

2. A sewing machine presser-foot comprising a foot portion with upturned forward end provided with a rigid longitudinal guiding rib intermediate its edges, and a recess in its lower face in line with said rib, and a yielding guide-finger attached to the rearward end of the foot and having an operative portion disposed in and adapted to recede within said recess.

3. A sewing machine presser-foot comprising a foot portion with upturned forward end provided with a rigid longitudinal guiding rib intermediate its edges and a recess in its lower face in line with said rib, a rearwardly extending chaining finger parallel with and at one side of said recess and

spaced therefrom to afford an intermediate needle aperture, and a yielding guiding finger having an operative portion disposed intermediate said rigid guide-rib and said needle aperture, said guide-finger having a spring shank attached to the rearward end of the foot to permit the yield of said operative portion within said recess.

4. A sewing machine presser-foot comprising a foot portion with upturned forward end provided with a rigid longitudinal guide-rib intermediate its edges, and a longitudinal recess in its lower face in line with said rib, and a yielding guide-finger attached to the rearward end of the foot and having an operative portion formed at its rearward end with an abrupt work-detaining shoulder and disposed in and adapted to recede within said recess.

5. A sewing machine presser-foot con-

structed with a foot portion formed with a needle aperture and with upturned forward end and having normally depending below its operative face a compound guide-member extending longitudinally thereof intermediate its opposite edges, said guide member comprising a rigid section extending backwardly from the forward extremity of the foot portion, and an upwardly yielding section whose operative portion extends toward the same from a point opposite the forward side of the needle aperture.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ALFRED GRIEB.

Witnesses:

VICTOR E. SMITH,
JOSEPH F. JAQUITH.