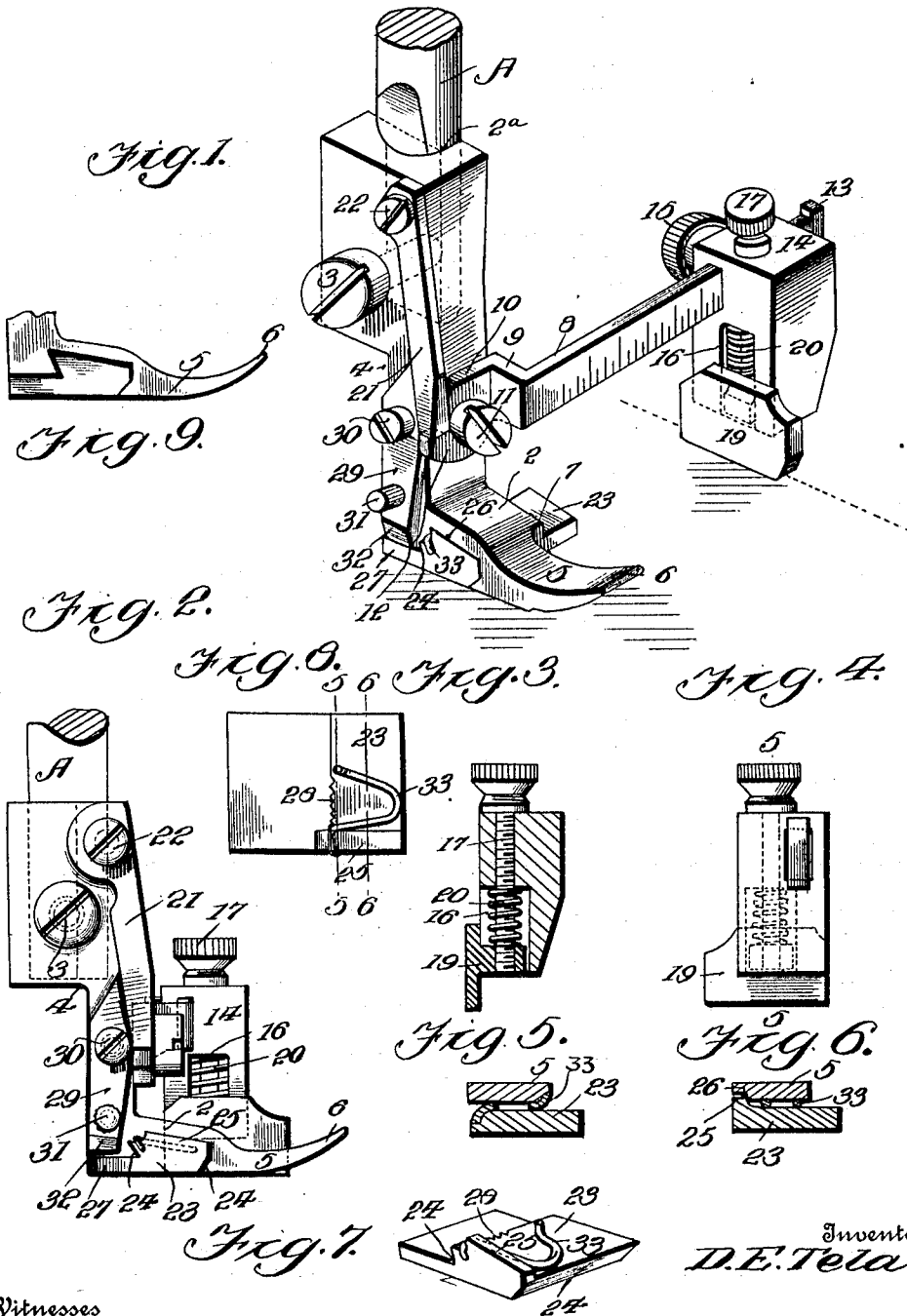


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SEWING MACHINE ATTACHMENT.
APPLICATION FILED JUNE 3, 1911.

1,053,679.

Patented Feb. 18, 1913.



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DAVID E. TELA, OF LOS ANGELES, CALIFORNIA.

SEWING-MACHINE ATTACHMENT.

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Specification of Letters Patent.

Patented Feb. 18, 1913.

Original application filed January 10, 1910, Serial No. 537,357. Divided and this application filed June 3, 1911. Serial No. 631,174.

To all whom it may concern:

Be it known that I, DAVID E. TELA, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Sewing-Machine Attachments, of which the following is a specification.

My invention relates to sewing machine attachments, and particularly to an attachment for the presser foot of a sewing machine.

The primary object of the invention is to provide a presser foot with an adjustable sole piece mounted in the sole of the presser foot, this sole piece normally giving a large presser surface beneath the presser foot and thereby providing for a relatively large engagement with the cloth.

A further object is to provide a sole piece of the character described which is adapted to be shifted laterally through the presser foot, thereby permitting a gage to be moved up into very close proximity to the presser foot.

A further object is to provide means for holding the sole piece in a shifted position.

My invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a perspective view of my attachment applied to the presser foot of a sewing machine. Fig. 2 is a side elevation of a portion of a presser rod, the presser foot therefor and my attachment. Fig. 3 is a section on line 5—5 of Fig. 4. Fig. 4 is a rear elevation of the gage block, the rest and the gage bar. Fig. 5 is a transverse section on the line 5—5 of Fig. 8. Fig. 6 is a section on line 6—6 of Fig. 8. Fig. 7 is a perspective view of the sole piece removed from the presser foot. Fig. 8 is a plan view of the sole piece, and Fig. 9 is a fragmentary side elevation of the presser foot, the sole piece being removed.

Referring to these drawings, A designates the usual presser rod of a sewing machine, and 2 the usual presser foot. The shank of this presser foot is cut away at its upper end, as at 2^a, to engage with the lower end of the presser rod, and is held in position thereon by a screw 3 which passes through the body of the presser foot and into the presser rod, the screw being provided with a head whereby it may be easily operated. The presser foot shank is cut away on its

rear face, as at 4, and the shank is then extended at right angles, as at 5, to form the presser foot proper, the extremity thereof being upwardly curved, as at 6, as usual. The extremity of the presser foot is also cut away as at 7 and it is at the junction of this cut-away portion with the side of the presser foot that the needle operates. Pivotally supported upon the front of the shank of the foot is a gage bar 8, the inner end of the gage bar being angled as at 9 to form an attaching base 10 through which passes a screw 11. The inner end of the base 10 is formed with an outwardly projecting lip 12 for engagement with the spring 21. The gage bar is provided with graduations upon its face and at its extremity carries a stop 13. Sliding on the gage bar 8 is a gage block 14 provided with a set screw 15 which engages with the bar so as to hold the gage set in any adjusted position. The gage block is formed on its inside face below the bar 8 with a recess 16 which intersects the face of the block, and passing through the gage block is a screw 17 whereby the gage block may be operated. This screw engages with a guide rest 19 so that by actuating the screw the rest may be lifted or depressed. Coil spring 20 urges the guide rest downward.

As a means for holding the gage bar 8 in either of its positions, I provide a laterally yieldable spring 21 mounted upon the outside face of the shank of the presser foot by means of a screw 22. This spring 21 extends downward and forward and engages with the lip 12, in this position preventing the gage bar from being turned below a horizontal position. All these parts may be of any suitable construction and have nothing to do with the present invention except as illustrating the application of the present invention. They are fully shown and described in my pending application Serial No. 537,357, filed January 10, 1910, of which this is a division.

My present invention relates particularly to a sole piece 23 which is shiftably mounted in a recess formed in the under side of the foot 5. This sole piece has the peculiar form shown in Fig. 7. The sides of the sole piece are downwardly and inwardly inclined, as at 24, and the recess in the foot in which the sole piece is mounted has also downwardly and inwardly inclined walls

so that the sole piece when in position as held in the foot may slide lengthwise therein. The outer end of the sole piece 23 is formed with an upwardly extending flange 25 which fits in a slightly cut-away portion 26 formed at the end face of the foot 5, as shown in Fig. 6. Thus the flanged end of the sole piece is normally flush with the side of the presser foot. The rear side of the sole piece is provided with a rearward extension 27 which is likewise accommodated in a recess extending longitudinally along the heel of the presser foot. The upper face of the sole piece at its rear edge is formed with notches 28, as shown in Fig. 7, for engagement with a pivoted catch 29. This catch as shown in Fig. 1 is pivotally attached to the side of the presser foot by means of an attaching screw 30 passing into the shank of the presser foot so far that it intersects the screw-threaded opening for the screw 11 so that the attaching of screw 30 may be held tightly in place. The lower end of the catch 29 is provided with a button or lug 31 whereby the catch may be shifted. The lower extremity of the catch 29 is beveled to form a knife edge 32 which, in one position of the sole piece 23, is adapted to engage over the rearward prolongation 27 of the sole piece and hold it in place, and which is also adapted, when moved forward, to engage with one or another of the notches 28.

Interposed between the upper face of the sole piece and the inner face of the recess in which the sole piece is carried is a spring 33. While I do not wish to limit myself to any particular form of spring, it is preferably V-shaped, U-shaped or W-shaped. That is, the spring is reflexed or retrorsed and tends to contract laterally. One end of the spring is attached to the sole piece 23 while the other end engages with the presser foot 5 as shown in Fig. 5, and thus the sole piece is held normally in such position that the flange 25 is flush with the side of the foot. The spring 33, however, permits the sole piece to move laterally, and it may be then held in its adjusted position by means of the catch 29 or by engagement with the guide rest 19 when the gage block is forced inward.

In the practical use of my invention the gage bar when not in use is turned in a vertical position and when needed is simply pulled down to horizontal position. The gage block is then moved to the desired point upon the scale and the set screw 15 tightened. The device is then ready for edge stitching. The catch 29 is normally out of engagement with the sole piece, but when the rows of stitching are to be made closer together than the amount that the sole piece projects beyond the presser foot then the sole piece can be shifted laterally

as much as necessary by shifting the gage block 14 with the guide rest 19 and the sole piece held in this shifted position by setting the gage block by means of the set screw 15. In other words the sole piece is simply pressed outward by the gage block and the gage block may be moved into contact with the side face of the presser foot. When the gage block is shifted back the sole piece will be returned to its normal position by the spring 33. The catch 29 is never required when the gage block is in use, nor is it used in seaming or other plain stitching. The catch 29 is only used when narrow piping is desired to be made and will probably be used with the sole piece only a few times during the entire year. The sole piece is very seldom required to be shifted without using the gage, but it will be seen that my device is capable of this operation. It is only necessary to push the sole piece out releasing the catch 29 for this purpose, and when the sole piece is shifted for the required extent depressing the catch into engagement with the notches 28 in the sole piece. When the sole piece is to be shifted back to its original and normal position, it is only necessary to release the catch 29 and the spring 33 will force the sole piece inward.

The sole piece forms a lateral extension of the presser foot, and thereby provides, under normal conditions, a presser foot having a width so wide that it will engage with the reciprocating feed rack beneath and across its whole face. At the same time it can be forced inward, as previously described, so as to render the presser foot narrow when rows of stitching are to be placed close together. If the presser foot is very wide it will prevent stitching being placed close together. If it is narrower than the reciprocating feed rack beneath, the rack can engage with the cloth only at that portion upon which the foot presses and the effect, especially in soft goods, is to make the cloth pull upward and thus make the stitching uneven. The sole piece in the under side of the foot keeps its place without the necessity of any adjustment, and needs no attention except when it is to be shifted outward without using the gage.

My invention is simple, can be adapted to all forms of presser feet and gages, and is very effective in use.

Having thus described my invention, what I claim as new is:—

1. A presser foot for sewing machines consisting of a rigid member having a flat under face and formed with a transverse recess on its under face and a sole piece slidable laterally in said recess and of greater length than the width of the presser foot, the under face of the sole piece being flush with the under face of the presser foot, a

spring yieldingly holding the sole piece in a retracted position, and means for latching the sole piece in a projected position.

2. A presser foot for sewing machines having a transverse recess on its under face intermediate its ends, a sole piece slidable laterally in said recess and of greater length than the width of the presser foot, and yielding means for holding the sole piece in a projected position.

3. A presser foot for sewing machines having a transverse recess on its under face intermediate its ends, a sole piece slidable laterally in said recess and of greater length than the width of the presser foot, the under face of the sole piece being flush with the under face of the presser foot and the sole piece being formed with a projecting portion at one end limiting the movement of the sole piece relative to the presser foot in one direction, and yielding means for holding the sole piece in a projected position.

4. A presser foot for sewing machines having a transverse recess on its under side, a sole piece slidable laterally in said recess and of greater length than the width of the presser foot, a spring holding said sole piece in its normal position, and means for holding the sole piece in a shifted position against the force of the spring.

5. A presser foot for sewing machines having a recess on its under face, a sole piece having the form of a plate sliding in said recess and longer than the width of the presser foot, a spring interposed between the sole piece and the under side of the foot, one end of the spring engaged with the foot and the other with the sole piece, said spring acting to hold the sole piece in its normal position, and a catch mounted on the presser foot for engaging the sole piece to hold it in shifted position against the force of the spring.

6. A presser foot for sewing machines having an undercut recess on its under face, a sole piece having the form of a plate sliding in said recess and longer than the width of the presser foot, the edges of the plate being beveled to fit said undercut recess and one side of the plate being formed with an upwardly extending flange for engagement with one edge face of the presser foot, a spring interposed between the sole

piece and the under side of the presser foot and acting to hold the sole piece in its normal position, and means for holding the sole piece in its shifted position against the force of the spring.

7. A presser foot for sewing machines having a recess on its under face, a sole piece having the form of a plate sliding in said recess and longer than the width of the foot, said plate being extended rearward beneath the heel of the presser foot, a spring interposed between the sole piece and the under side of the presser foot, one end of the spring being engaged with the presser foot and the other with the sole piece, said spring acting to hold the sole piece in its normal position, and a catch mounted on the presser foot at the heel end thereof and engaging the sole piece to hold it in its shifted position against the force of the spring.

8. An attachment for sewing machines including a presser foot, a laterally extending gage-bar, a sliding member on the gage-bar, means for holding the sliding member in its adjusted positions, a transversely shiftable sole piece carried in a recess in the under side of the presser foot and of greater length than the width of the presser foot, yielding means for holding the sole piece in its normal position, and projecting toward the slidable member on the gage bar, and a catch pivoted to the side of the presser foot and engageable with the sole piece to hold it in a shifted position against the force of the spring.

9. An attachment for sewing machines including a presser foot, a transversely extending gage-bar, a movable member on the gage-bar having a downwardly extending guide-rest, means for holding the movable member adjusted on the gage-bar, a laterally shiftable sole-piece mounted on the presser foot in alinement with the rest and adapted to be engaged by said rest when the movable member is shifted toward the presser foot, and a spring for holding the sole-piece projecting toward the rest.

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

DAVID E. TELA. [L. S.]

Witnesses:

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