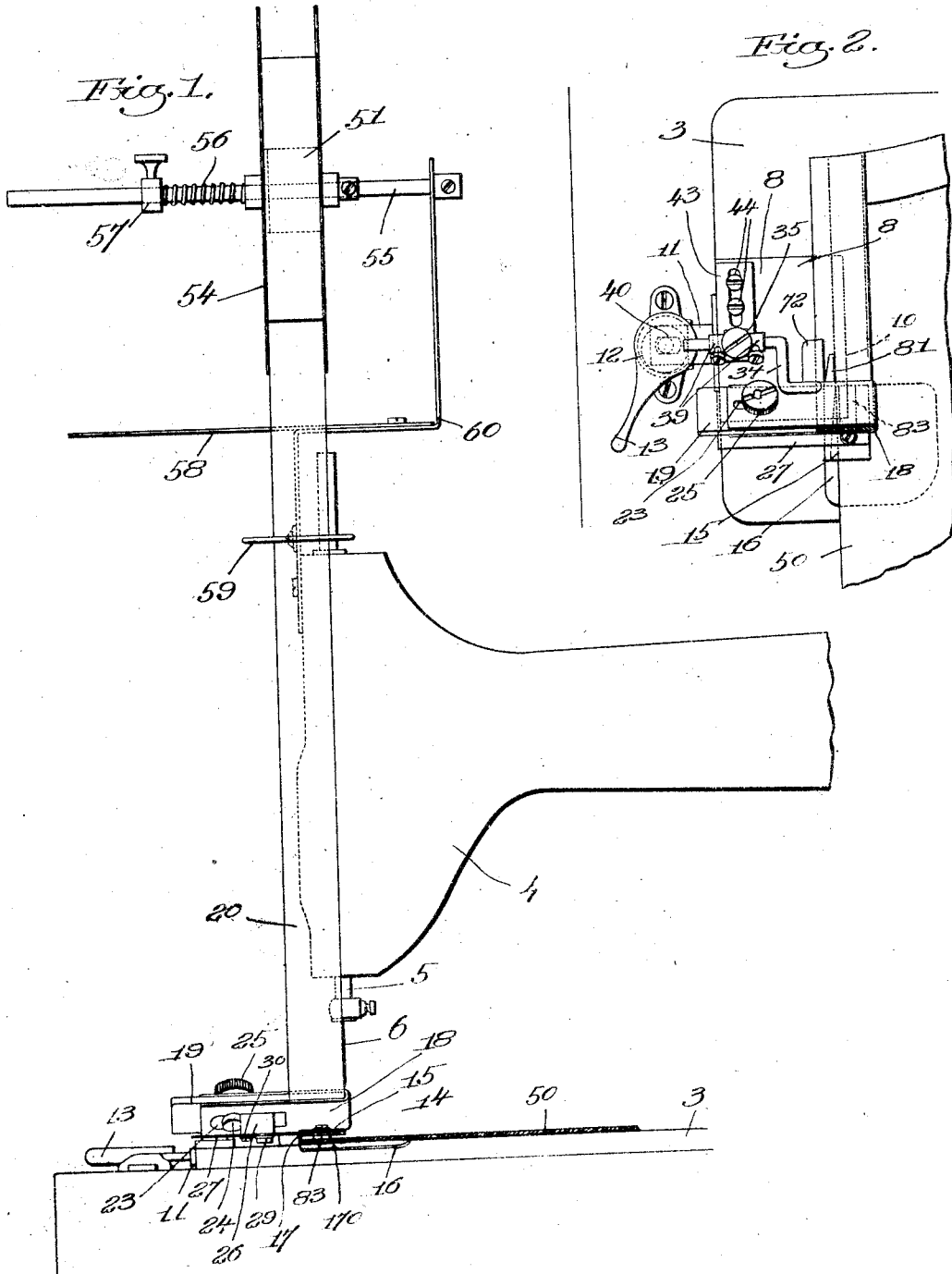


B. FLEIGEL.
GUIDE FOR SEWING MACHINES.
APPLICATION FILED APR. 24, 1909.

Patented May 24, 1910
3 SHEETS—SHEET 1

959,330.



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3 SHEETS—SHEET 2.

Fig. 3.

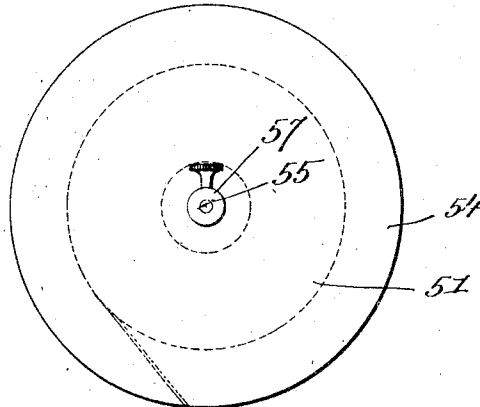


Fig. 4.

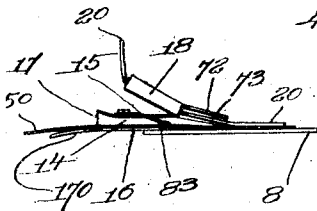
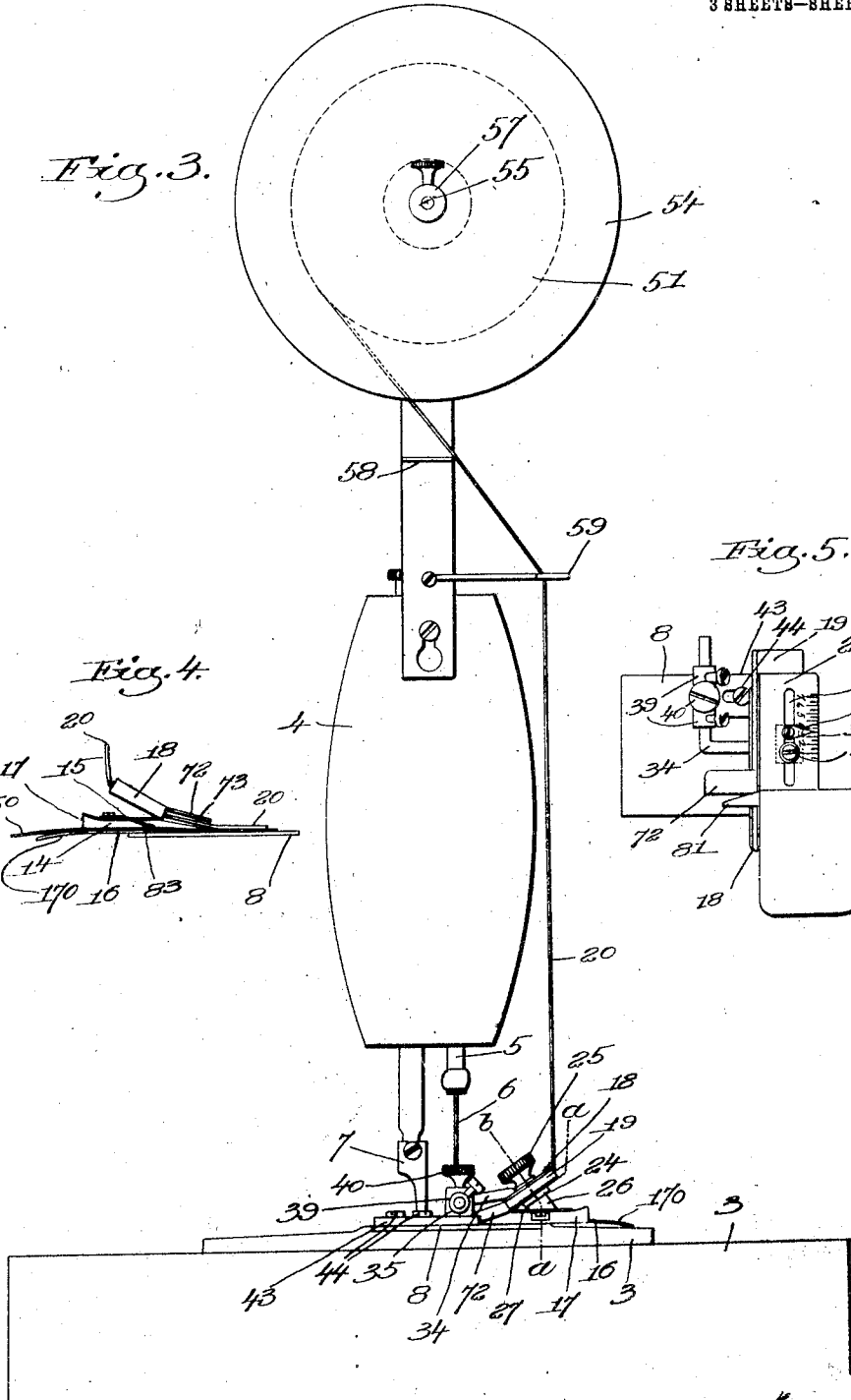
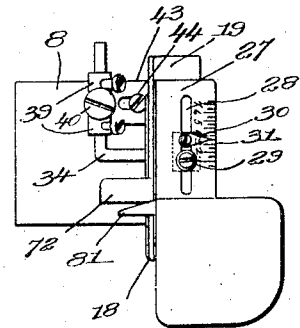


Fig. 5.



Witnesses:

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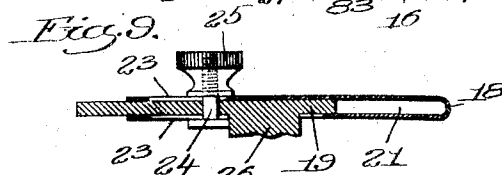
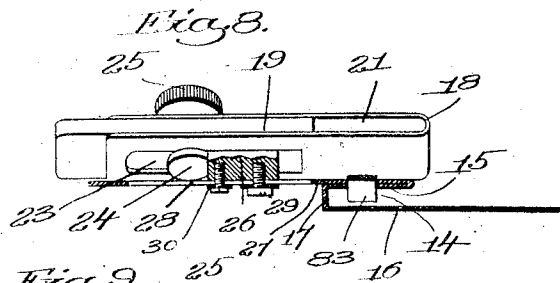
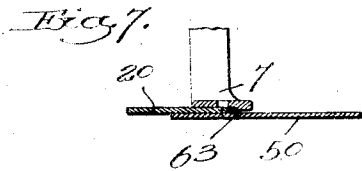
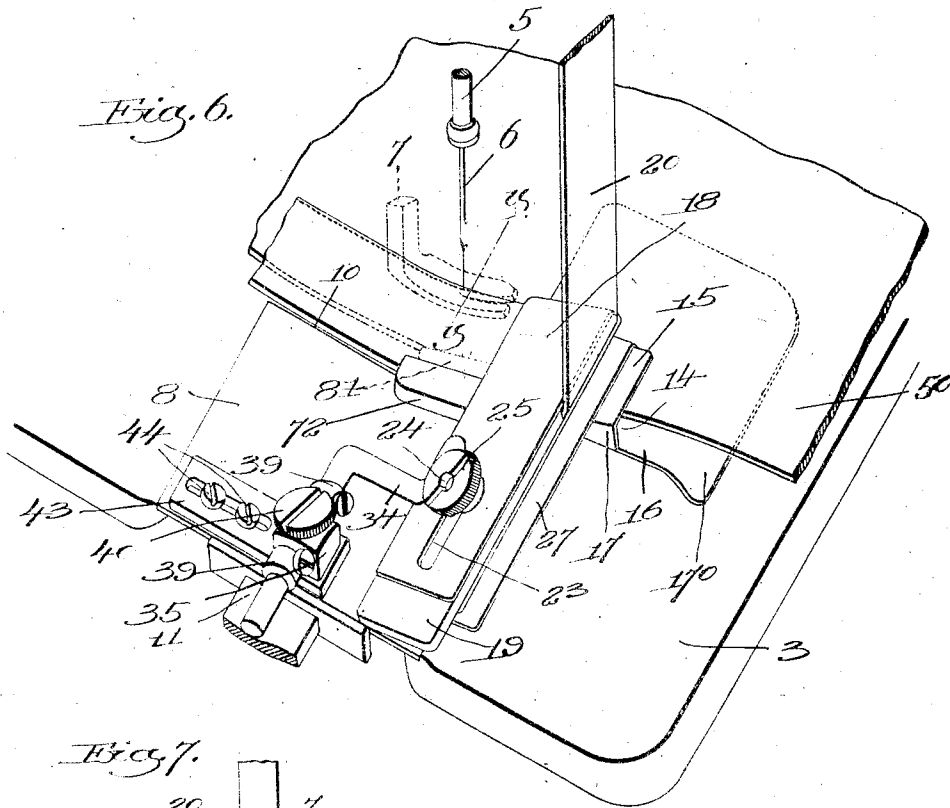
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

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GUIDE FOR SEWING-MACHINES.

959,330.

Specification of Letters Patent.

Patented May 24, 1910.

Application filed April 24, 1909. Serial No. 491,933.

To all whom it may concern:

Be it known that I, BENJAMIN FLEIGEL, a citizen of the United States, residing at Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Guides for Sewing-Machines, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to that character of guide mechanism for sewing machines which is adapted to guide each of two separate pieces as they are sewed together, and the invention has particular reference to a guide adapted to guide properly a shoe lining and a top facing while they are being sewed together. As is well known, it is customary in the manufacture of shoes to sew a strip of leather half an inch or so wide and called a top facing around the top edge of the lining of the shoe, and my present invention is designed especially to guide the shoe lining and the top facing while they are sewed together.

My improved device comprises a top facing guide and the lining guide, and the top facing guide is constructed so that it can be adjusted for different widths of top facings, and the lining guide is so arranged that the movement of adjusting the top facing guide will also properly adjust the lining guide so that no separate adjusting of the lining guide is necessary when adjusting the device for different widths of top facings.

My improved lining guide is also so constructed that it can be adjusted relative to the top facing guide so that the line of stitching may be placed at any desired distance from the edge.

The lining guide has associated therewith a scale so as to facilitate the setting of the guide, and also a spring holder to act on the edge of the lining to prevent it from curling up on the edge.

In the drawings wherein I have shown one embodiment of my invention, Figure 1 is a side view of a portion of a sewing machine having my improvements applied thereto; Fig. 2 is a top plan view of the guide device; Fig. 3 is an end view of the sewing machine arm and portion of the bed showing my improved guide; Fig. 4 is a side view of the guide device looking toward the left Fig. 2;

Fig. 5 is a view showing the guide device turned into inoperative position; Fig. 6 is a perspective view of my improved guide device; Fig. 7 is a section through the presser foot on the line $y-y$, Fig. 6; Fig. 8 is an enlarged section on the line $a-a$, Fig. 3; Fig. 9 is an enlarged section on the line $b-a$, Fig. 3.

3 designates the bed of a sewing machine, 4 a portion of the overhanging arm, 5 the needle bar carrying the needle 6, and 7 the presser foot. These parts are or may be of any suitable or usual construction and form no part of my present invention.

My improved guide device is an attachment adapted to be attached to and used in connection with any sewing machine. As herein shown, it comprises a plate or support 8 to which the guides are attached and which is adapted to be removably clamped to the bed of the sewing machine. This plate is of a proper width to slide into the guideway with which the beds of sewing machines are usually provided, and said plate is shown as clamped in position against a shoulder 10 of the guideway by means of a clamp 11 which is sustained by the bed of the machine. This clamp is adapted to be actuated by a cam 12 which is given its movement by a suitable handle 13. By swinging the handle toward the left Fig. 2, the clamp 11 will be withdrawn from the edge of the plate 8 thus permitting said plate to be lifted out of the slot or guideway formed in the bed 3. When the clamp is in operative position it clamps the plate hard against the shoulder 10 thus holding the plate firmly in position.

The lining guide comprises the wall or guiding portion 17 from which extend the two side plates 15 and 16 that form between them the open throat 14 through which the lining 50 passes. The side plate 16 is preferably of considerable area, as shown, and it overlies the bed of the sewing machine, said plate being preferably provided with the curved portion 170 which facilitates the entrance of the lining into the open throat 14. The guide 17 extends beyond the plate 16 a sufficient distance so that the end of said guide is opposite the needle, as clearly seen in Fig. 6. This is a distinct advantage as any point on the edge of the work is correctly guided, not only before it reaches the

needle, but also while it passes the needle. By means of this construction, much more accurate work can be done.

The lining guide has associated therewith
5 a holder which acts on the edge of the lining and prevents it from curling up. This holder is shown at 83 and it comprises a spring finger which is sustained by the plate 15 and occupies a slot therein, and which has
10 engagement with the top of the lining near or at the edge. The resiliency of the finger permits it to yield sufficiently to allow the stay piece or any other thicker portion of the lining to pass readily as the lining is fed
15 forward.

The top facing guide is in the form of a closed loop or passageway through which said top facing is fed. This loop is herein formed by the U-shaped member 18 and the
20 slide 19 which is received between the sides of the part 18 and which forms one side of the slot or passageway 21 through which the top facing 20 extends. The slide 19 is adjustable relative to the part 18 so as to vary
25 the width of the opening 21 in accordance with the width of the top facing being sewed. For this purpose the two sides of the part 18 are slotted, as at 23, and a clamping screw 24 extends through said
30 slots and through an aperture in the slide 19, said clamping screw being screwed into a nut 25 on the upper side of the part 18. By loosening the nut, the slide 19 may be adjusted back and forth relative to the part 18
35 to vary the width of the opening 21 in accordance with the width of the top facing 20 which is being sewed.

The top facing guide has associated therewith an extension 72 which is provided
40 with a groove 73 that embraces the edge of the top facing. This extension is of a sufficient length to hold and guide the edge of the top facing to a point opposite or beyond the needle, so that the top facing is prevented
45 from being crowded away from the needle before it is stitched to the lining.

In my improvement the lining guide 17 is so sustained that it will be adjusted relative to the part 18 simultaneously with the
50 adjustment of the slide 19. I secure this end by securing said lining guide to the slide 19, and in the present embodiment I do this by providing said slide 19 with the projection 26 to the face of which is secured a
55 plate or arm 27 that is rigid with the lining guide. The block 26 is wedge shaped so that when the plate 16 rests on the bed of the machine, the part 18 and slide 19 are situated in a plane inclined to the plane of
60 said bed. The arm 27 is preferably adjustably sustained on the block 26 so that the lining guide may be adjusted relative to the slide 19. As herein shown, said arm is
65 provided with a slot 28 through which extends a clamping screw 29, that screws into

the block 26 so that by loosening said clamping screw the lining guide may be properly adjusted relative to the slide 19. An index
70 finger 30 secured to the block 26 cooperates with graduation marks 31 on the bottom of the arm 27 to assist in properly adjusting the lining guide to bring the stitches the desired distance from the edge of the lining. The two guides above described are pivotally
75 secured to the plate 8 so that they can be swung from the position shown in full lines in Fig. 3 to the position shown in Fig. 5 to permit the adjustment of the lining guide.

As herein shown the part 18 has rigid
80 therewith the stem 34 which extends through a stand 35 carried by the plate 8. Two collars 39 on the stem limit the longitudinal movement thereof in the stand, and the set screw 40 serves to prevent the stem from
85 turning in the stand and to hold the guide in proper position against the bed of the sewing machine. The stand 35 is made adjustable so that the guides may be moved farther from or closer to the needle as desired,
90 this adjustment being effected by making the stand with a slotted foot 43 through the slot in which a clamping screw or clamping screws 44 extend into the plate. In using my improvement, the plate 8 is
95 clamped to the bed of the sewing machine and the stand 35 is then adjusted so as to bring the guide device the desired distance from the needle. The set screw 24 is then loosened and the slide 19 is adjusted to give
100 the throat or passage 21 a width equal to that of the top facing 20 to be used. The lining guide 17 is then adjusted relative to the top facing guide so that the line of stitching made by the needle will be at the
105 desired distance from the edge of the lining. When the parts are thus adjusted the lining 50 is fed into the throat 14 with the edge against the guide 17 and the top facing 20 is fed through the passage 21. Said passage
110 21 is inclined downwardly, as will be seen from Fig. 5, so that when the top facing emerges from the passage it lies in contact with and immediately on top of the lining 50. As the lining and top facing are thus
115 fed simultaneously forward they can be stitched together, as will be obvious. The top facing 20 may conveniently be supported on a reel 51 which is sustained by the head 4 so that said top facing will be fed continuously
120 to the guide. After a length of top facing has been sewed to the lining it may be cut and a new lining then put in place. The reel is adapted to receive top facings of different widths, and for this
125 purpose it is made with the side or head 54 capable of adjustment toward or from the other side of the head. The reel as herein made comprises a rod 55 sustained in a bracket 60 which is secured to the head of
130

the machine, and said rod has the reel loosely mounted thereon. The side 54 of the reel is slidably mounted on the rod 55 and is held against the roll of top facing 20 by means of a spring 56, said spring in turn being held in position by the adjustable stop collar 57. As the top facing is withdrawn from the reel it passes over a guide arm 58 extending from the bracket 60 and then down through a guide eye 59 to the top facing guide. The reel is so positioned that the right hand edge of the top facing is always properly situated with reference to the needle, it being remembered that the top facing is always to be sewed to the lining close to the right hand edge thereof. As an additional means for guiding the top facing, I may make the presser foot with the shoulder 63, as seen in Fig. 7, against which the edge of the top facing has engagement. In this way the top facing is guided at both edges and will be invariably held in proper position for being sewed to the lining.

One of the advantages of my improved construction is that the adjustment of the slide 19 for varying the width of the passage 21 to accommodate different sizes of top facings effects automatically the required adjustment of the lining guide so that whenever it is necessary to adjust the guide device for different widths of top facings, such adjustment can be secured merely by adjusting the slide 19 and without the necessity of making an independent adjustment of the lining guide itself. This advantage is secured by reason of the fact that the lining guide is secured to and supported by the block 26 which in turn is carried by the slide 19. Another advantage of my improved construction is that the guides for the top facing and the lining are both so constructed that they guide the edges of the two pieces until they pass the point where the stitching occurs, and thus there is no possibility of the edges being crowded out of proper position before they are stitched.

While I have shown one embodiment of my invention I do not wish to be limited to the constructional details of the device.

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

1. In a sewing machine, the combination with a base-plate adapted to be secured to the bed of the machine, of a top facing guide pivoted to the plate and having a part adjustable for different widths of top facing, and a lining guide carried by and adjustable with said adjustable part of the top facing guide.

2. In a sewing machine, the combination with a lining guide, of a top facing guide situated above the lining guide and provided

with an adjustable part for adjusting said top facing guide for different widths of top facing, and means connecting said lining guide to said adjustable part whereby the lining guide is adjusted simultaneously with said part.

3. In a sewing machine, the combination with a top facing guide having a part adjustable for different widths of top facing, of a lining guide carried by and adjustable with said adjustable part of the top facing guide, and a resilient finger associated with the lining guide and adapted to rest on the edge of the lining to prevent it from curling.

4. In a sewing machine, the combination with stitching mechanism including a needle, of a U-shaped lining guide having a guiding portion to engage the edge of the lining, said guiding portion being provided with an extension which terminates at a point substantially opposite the needle, of a top facing guide having a part adjustable for different widths of top facing, and means for securing said lining guide to said adjustable part.

5. In a sewing machine, the combination with a bed having a shoulder, of stitching mechanism, a lining guide, a top facing guide situated above the lining guide and having an angular relation thereto, a base plate for sustaining said guides, and a cam-actuated clamping member arranged to engage the edge of the base and clamp the latter against said shoulder.

6. In a sewing machine, the combination with stitching mechanism, of a top facing guide comprising a U-shaped member and a slide adjustable between the arms thereof, and a lining guide carried by said slide and adjustable therewith.

7. In a sewing machine, the combination with stitching mechanism, of a top facing guide comprising a U-shaped member and a slide adjustable between the arms thereof, and a lining guide adjustably carried by said slide and adjustable therewith.

8. In a sewing machine, the combination with stitching mechanism, of a top facing guide comprising a U-shaped member and a slide adjustable between the arms thereof, and a lining guide adjustably carried by said slide and adjustable therewith, said lining guide having a scale associated therewith for facilitating the proper adjustment thereof.

9. In a sewing machine, the combination with the head of the machine and stitching mechanism, of a lining guide, a top facing guide, a bracket or arm carried by the sewing machine head and having its upper end offset, a rod extending laterally from said offset portion of the arm, a reel for the top facing mounted on said rod, said reel comprising two side pieces, one of which is fixed to but adjustable longitudinally of the rod and the other of which slides on the rod,

and a guide arm extending laterally from the bracket over which the top facing passes.

10. In a sewing machine, the combination with a base plate adapted to be secured to the bed of the machine, of a top facing
5 guide having an adjustable part for different widths of top facing, a lining guide secured to and adjustable with said adjustable part, a stem extending from the top facing guide,

and a block adjustably carried by said base to plate to which said stem is pivoted.

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

BENJAMIN FLEIGEL.

Witnesses:

LOUIS C. SMITH,
THOMAS J. DRUMMOND.