

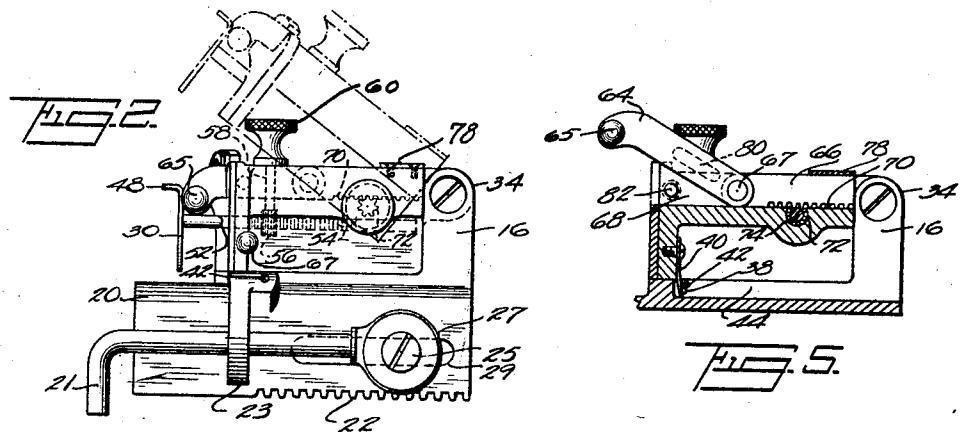
June 3, 1930.

A. M. WENZEL

1,761,856

ADJUSTABLE GAUGE FOR SEWING MACHINES

Filed Dec. 17, 1927



Patented June 3, 1930

1,761,856

# UNITED STATES PATENT OFFICE

ANN MADELINE WENZEL, OF BROOKLYN, NEW YORK

## ADJUSTABLE GAUGE FOR SEWING MACHINES

Application filed December 17, 1927. Serial No. 240,812.

This invention relates to gauges on sewing machines.

One object of my invention is to provide easily adjustable guide and pressure members.

Another object is a means provided for swinging the gauge device away from the material.

Another object is an independent means for lifting the pressure member from contact with the material.

With these and other objects in view which will become apparent in the following description, my invention consists in the novel combination of parts, as will be more fully described and pointed out in the claims.

Referring to the following drawings forming a part of this specification in which like numerals designate like parts in all of the views:

Figure 1 is a perspective view of the gauge members with some parts of a sewing machine.

Figure 2 is a front elevation of the gauge unit.

Figure 3 is a plan view of the gauge unit with a fragment of material shown in position for stitching.

Figure 4 is an end view of the gauge unit with part of the sewing machine in dot and dash lines.

Figure 5 is a section taken on the lines 5-5 of Figure 3.

In Figure 1 I have shown some parts of a sewing machine, namely, a throat plate 10, part of a foot bar 12, a stitching needle 14 and a feed dog 15, all of which are standard parts on all sewing machines.

A gauge unit generally designated by the reference character 16 is slidably mounted on the bar 18 attached to the sewing machine.

The unit 16 has a base portion 20, on the lower edge of which are cut rack teeth 22 adapted to engage the teeth of a pinion 24 journaled in the frame of the sewing machine, as shown in Figure 4. A knurled knob 26 is formed as an integral part of the pinion 24.

An adjustable braid lapping rod 21 is slidably mounted in a lug 23 on the base por-

tion 20 and has at one end a screw 25 which passes through an ear 27 attached to the rod 21, through a slot 29 and is threaded in the bar 18. By tightening the screw 25 the rod 21 is held secure in the adjusted position.

A housing 28 containing an adjustable edge guide 30 and pressure arm 32, is pivotally mounted on a lug 34 extending upward from the base portion 20 at 36.

A head 38, formed on a flat spring member 40 secured to a part of the housing 28, engages a wire 42 suspended between the side walls 44 formed on the upper surface of the base member 20.

Also forming a part of the housing 28 is a braid guide 46.

The edge guide 30 is formed to engage curved surface 11 of the throat plate 10 and has its upper edge 48 bent at a right angle which is adapted to engage one edge of that part of a braid form such as used in making hats and the like.

The opposite side of the said edge guide 30 serves as a guide for the advancing braid which passes between this guide 30 and the aforementioned guide 46. A resilient member 47 is secured to the face of the guide 46 with its forward edge 49 free to engage and place a slight tension on the advancing braid.

A rod 50 secured to the edge guide 30 passes through a hole 52 in the housing 28. Rack teeth 54 are formed on this rod 50, which engage a pinion 56 mounted on a shaft 58 and journaled in the housing 28. A thumb screw 60 secured to the other end of the shaft 58 is located on top of the housing 28.

The pressure arm 32 is a suitable resilient member secured to the nose 62 of a bar 64.

The bar 64 is pivoted to a similar bar 66 at 67 as shown in Figure 5, both of said bars being slidably mounted in a slot 68 in the top of the housing 28. Rack teeth 70 formed on the lower edge of bar 66 engage a pinion 72 mounted on a shaft 74 and journaled in the housing 28. A thumb screw 76 secured to the other end of this shaft extends outward from the front of the housing 28.

Rotation of the thumb screw 76 will adjust the location of the pressure arm 32 so that said arm will be directly over the braid to

hold it flat while the braid is fed toward the stitching needle 14.

A plate 78 screwed to the housing 28 bridges the slot 68 and prevents the bar 66 from leaving said slot.

5 The bar 64 has a groove 80 cut on the back face thereof, which is adapted to engage a spring compressed plunger 82 mounted in the rear of the housing 28. A screw 84 is used to adjust the tension of the spring 86.

10 The bar 64 is lifted by means of a knob 65, to the position shown in Figure 5. The entire housing can be lifted to the position shown in dot and dash lines of Figure 2 by means of a knob 67.

15 To operate this device the operator first places the braid or other suitable material in the correct position under the needle 14 for stitching.

20 A sewing machine built for zig-zag stitching, the stitch of which is shown in Figure 3, is described in a copending application serial No. 117,070, filed June 19, 1926, by August J. Wohlpart.

25 The housing 28 which at this time would be in the lifted position as shown in dot and dash lines of Figure 2, would now be lowered and adjusted by means of the knurled knob 26 to the position shown in Figure 3 with the braid against the surface of the guide plate 46 and resilient member 47.

30 The edge guide is now adjusted by means of the thumb screw 60 until its back surface comes in contact with the other edge of the braid.

35 The pressure arm which is in the position shown in Figure 5, is lowered until the slot 80 engages the plunger 82 after same has been adjusted by means of the thumb screw 76 to locate the arm 32 directly over the center of the braid.

40 This pressure arm provides the proper tension to the braid and prevents bulging of the said braid as it is fed inward.

45 I claim:

46 1. A gauge device comprising a base, a housing pivoted on said base, a guide in said housing, a pressure arm pivotally mounted on said housing for vertical bodily movement, a guide face on said housing and a resilient guide member on said face.

50 2. A gauge device comprising an adjustable sliding base, a housing pivoted on said base, an adjustable guide in said housing, a slide adjustable on said housing, a pressure arm pivoted to said slide, a guide face on said housing and a resilient guide member on said face.

55 3. A gauge device comprising an adjustable sliding base, a lapping rod mounted on said base, a housing pivoted on said base, an adjustable guide provided with work engaging faces angularly disposed, said guide being mounted in said housing, a pressure arm pivotally mounted on said housing for verti-

cal bodily movement, a guide face on said housing and a resilient guide member on said face.

4. A gauge device comprising a base and a housing pivoted on said base containing an adjustable guide member provided with angularly disposed working faces, a horizontally adjustable vertically pivoted pressure arm, and a guide face provided with a resilient guide member.

5. A gauge device comprising a base, a housing carried thereby and provided with a guide face, a guide carried by said housing in spaced relation to said guide face, and a pressure arm for holding work between the vertical planes of said guide and said guide face said arm mounted on said housing for arcuate movement from between said planes.

Signed at New York city in the county of New York and State of New York this 13th day of December, A. D. 1927.

ANN MADELINE WENZEL.

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