

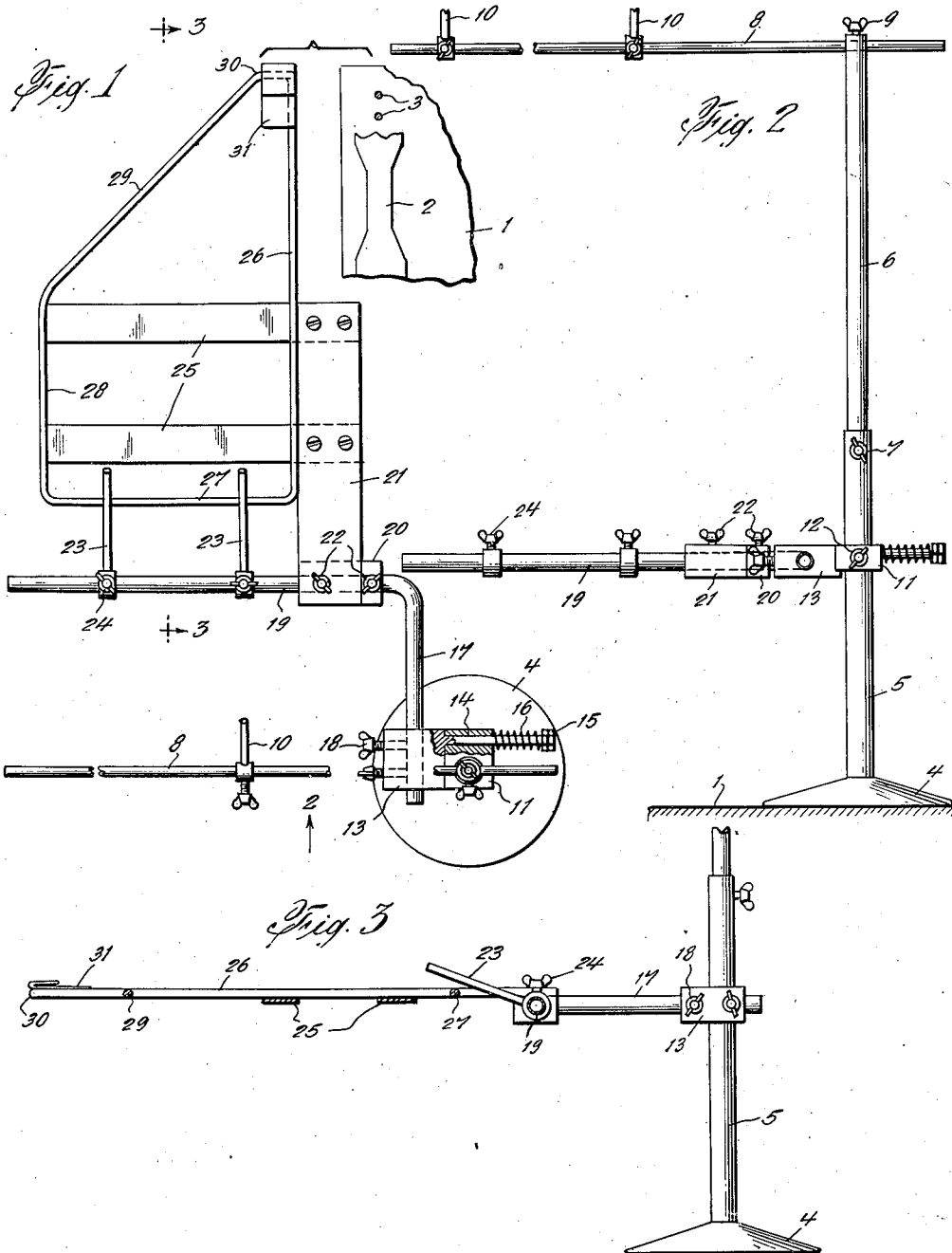
Feb. 1, 1949.

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2,460,583

ADJUSTABLE FABRIC GUIDING ATTACHMENT

Filed July 26, 1945



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2,460,583

ADJUSTABLE FABRIC GUIDING
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Application July 26, 1945, Serial No. 607,148

10 Claims. (Cl. 112-152)

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The present invention is directed to sewing machines and more particularly to an attachment for such machines for the purpose of guiding fabric to the sewing mechanism.

In the production of various articles on a sewing machine, it becomes necessary to sew together relatively long pieces of fabric which may be relatively wide and bulky. In accomplishing this the operator often has difficulty because of the tendency of the fabric to twist and turn, thus slowing the operations and often producing defective goods. For instance, in the sewing of a ruffled edge to curtains, the pieces of fabric to be sewed together are relatively large and the operator has difficulty in keeping the pieces in their proper alignment.

The present invention is intended to overcome such difficulties and disadvantages, it being among the objects thereof to provide a device for guiding fabric to the needles of a sewing machine, which is simple in construction and effective in operation.

It is also among the objects of the present invention to provide a structure which is a fabric guiding attachment and which is readily adjustable to various types and sizes of fabric and which may be placed in operative or inoperative position easily and readily.

In practicing the present invention there is provided a standard which is usually attached to the bed of the sewing machine having an arm thereon at the upper portion for guiding a strip of fabric over the same from one side of the sewing machine. A lower arm is provided having a frame which acts as a guide for the fabric passing over the upper arm and makes certain that the fabric approaches the needles of the sewing machine in the proper position without the possibility of shifting or wrinkling.

In the accompanying drawing constituting a part hereof and in which like reference characters indicate like parts,

Fig. 1 is a top plan view of a fabric guiding attachment made in accordance with the present invention, some parts being broken away for clearness;

Fig. 2 is a side elevational view thereof; and

Fig. 3 is a vertical cross-sectional view taken along the line 3-3 of Fig. 1.

The sewing machine is illustrated fragmentarily by bed 1 on which is mounted head 2 and a pair of needles 3 which are operated by the mechanism of the sewing machine as usual.

Fixed on bed 1 is a base 4 having a vertical standard 5 integrally therewith. Said standard

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is hollow and an extension 6 is adapted to fit therein with a set screw 7 for clamping extension 6 in various positions. A horizontal arm 8 passes through an opening in the top of extension 6 and a set screw 9 is adapted to clamp the same in adjusted position which may be varied at will. A pair of end guides 10 fitted with suitable set screws are provided on arm 8 and the spacing thereof is adjusted to suit the fabric to be sewed.

A block 11 fits around standard 5 and is held in adjustable position by set screw 12. A pivoted member 13 having an extension 14 passing through an opening in block 11 is held in position by nut 15 and spiral spring 16, as best shown in Fig. 1. A right angle extension 17 has one leg passing through an opening in member 13 and set screws 18 hold the same in adjusted position.

The other leg 19 has secured thereto a block 20. Integrally united with said block is a plate 21 and said block and plate are held in position on leg 19 by set screws 22. A pair of guides 23 adapted to be clamped in place by set screws 24 are provided on leg 19.

Secured to plate 21 are a pair of lateral strips 25 on which a frame is mounted. The frame consists of a side member 26 adjacent to the sewing machine, an end member 27 at right angles thereto and an opposite side member 28 parallel to 26. The frame is completed by an angularly placed member 29 which is usually at 45° to member 26. The opposite end 30 connects 26 with 29. All of said frame elements are preferably made of a single piece of wire or rod. A folded piece of sheet metal 31 secured to the frame at 30 provides means to guide fabric to the sewing machine.

In operation guides 10 and 23 are adjusted and set for the proper width of the fabric to be sewed and in proper relationship to the frame. A relatively long piece of fabric is placed usually in a basket directly below arm 8 and the end thereof is guided between guides 10, then downwardly in front of leg 19 and between guides 23. The fabric then passes under the frame and is folded over the top thereof around member 29. The edge thereof is held in member 31 so as to guide it properly with respect to the needles. In the operation the operator has a suitable fabric directly under the frame and matches the edge thereof with the edge of the strip of fabric passing over said frame and to the needles. In this manner, the two pieces of fabric may be easily guided to the needles by the operator.

When the sewing operation is complete or under other suitable circumstances where the guid-

ing attachment is to be placed in inoperative position, it is merely lifted whereby member 13 pivots around extension 14 until the frame is in a vertical position, the spring 16 maintaining it there against accidental displacement. Because of the provision of various sliding connections and the set screws controlling the same, it will be seen that ready adjustment of the position of the attachment may be made to suit all working conditions.

Although the invention has been described setting forth a single embodiment thereof, it will be apparent to those skilled in the art that many changes in the details of construction may be made without departing from the principles set forth. For instance, some of the sliding connections may be omitted or the equivalent of the adjustments may be provided by other well-known means. The standard need not rest upon the bed of the sewing machine but may be secured to a floor or any other stationary element. The frame need not be of wire as other forms thereof are suitable and the attachment thereof to the standard may be of different mechanical construction. These and other changes in the details of the invention may be made within the spirit thereof and the invention is to be broadly construed and not to be limited except by the character of the claims appended hereto.

We claim:

1. Fabric guiding attachment for sewing machines comprising a standard, an arm at the upper part thereof extending horizontally over which fabric is adapted to pass, a horizontal extension below said arm, a substantially flat horizontal guide frame secured to said extension and terminating adjacent to the needle of said machine, said guide-frame being adjustable on said extension, one edge of said frame being at 45° to the line of travel of fabric being sewed, said fabric passing over said arm and on said frame across the front of said machine, then over said 45° portion and under said needle.

2. Fabric guiding attachment for sewing machines comprising a standard, an arm at the upper part thereof extending horizontally over which fabric is adapted to pass, a horizontal extension below said arm, a substantially flat horizontal guide frame secured to said extension and terminating adjacent to the needle of said machine, said guide-frame being adjustable on said extension, one edge of said frame being at 45° to the line of travel of fabric being sewed, said fabric passing over said arm and on said frame across the front of said machine, then over said 45° portion and under said needle, and guides on said arm and frame to prevent said fabric from moving laterally.

3. Fabric guiding attachment for sewing machines comprising a standard, an arm at the upper part thereof extending horizontally over which fabric is adapted to pass, a horizontal extension below said arm, said extension being pivotally mounted on said standard to allow raising of a guide-frame from the front of said machine, a substantially flat horizontal guide frame secured to said extension and terminating adjacent to the needle of said machine, said guide-frame being adjustable on said extension, one edge of said frame being at 45° to the line of travel of fabric being sewed, said fabric passing over said arm and on said frame across the front of said machine, then over said 45° portion and under said needle.

4. Fabric guiding attachment for sewing machines comprising a standard, an arm at the upper part thereof extending horizontally over which fabric is adapted to pass, a horizontal extension below said arm, said extension being pivotally mounted on said standard to allow raising of a guide-frame from the front of said machine, a stop on said extension to prevent said frame from moving below the horizontal, a substantially flat horizontal guide frame secured to said extension and terminating adjacent to the needle of said machine, said guide-frame being adjustable on said extension, one edge of said frame being at 45° to the line of travel of fabric being sewed, said fabric passing over said arm and on said frame across the front of said machine, then over said 45° portion and under said needle.

5. Fabric guiding attachment for sewing machines comprising a standard, an arm at the upper part thereof extending horizontally over which fabric is adapted to pass, a horizontal extension below said arm, a substantially flat horizontal guide frame secured to said extension and terminating adjacent to the needle of said machine, said guide-frame being adjustable on said extension, one edge of said frame being at 45° to the line of travel of fabric being sewed, said fabric passing over said arm and on said frame across the front of said machine, then over said 45° portion and under said needle, and guides on said arm and frame to prevent said fabric from moving laterally, said guides being adjustable for various widths of fabric.

6. Fabric guiding attachment for sewing machines comprising a standard, an arm at the upper part thereof extending horizontally over which fabric is adapted to pass, a horizontal extension below said arm, a substantially flat horizontal guide frame secured to said extension and terminating adjacent to the needle of said machine, said guide-frame being adjustable on said extension, one edge of said frame being at 45° to the line of travel of fabric being sewed, said fabric passing over said arm and on said frame across the front of said machine, then over said 45° portion and under said needle, and means for adjusting the positions of said arm and extension relative to said machine.

7. Fabric guiding attachment for sewing machines comprising a standard, an arm at the upper part thereof extending horizontally over which fabric is adapted to pass, a horizontal extension below said arm, a horizontal guide frame secured to said extension and terminating adjacent to the needle of said machine, one edge of said frame being at 45° to the line of travel of fabric being sewed, said fabric passing over said arm and on said frame across the front of said machine, then over said 45° portion and under said needle, a plate secured to said frame, a block adjustably secured to said extension, said plate mounted on said block.

8. Fabric guiding attachment for sewing machines comprising a standard, an arm at the upper part thereof extending horizontally over which fabric is adapted to pass, a horizontal extension below said arm, a horizontal guide frame secured to said extension and terminating adjacent to the needle of said machine, one edge of said frame being at 45° to the line of travel of fabric being sewed, said fabric passing over said arm and on said frame across the front of said machine, then over said 45° portion and under said needle, said extension being right angular,

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one leg thereof being parallel to the front of said machine and held in said standard and the other leg projecting forwardly and having said frame mounted thereon.

9. Fabric guiding attachment for sewing machines comprising a standard, an arm at the upper part thereof extending horizontally over which fabric is adapted to pass, a horizontal extension below said arm, a substantially flat horizontal guide frame secured to said extension and terminating adjacent to the needle of said machine, said guide frame being adjustable on said extension, one edge of said frame being at 45° to the line of travel of fabric being sewed, said fabric passing over said arm and on said frame across the front of said machine, then over said 45° portion and under said needle, the free end of said frame having an end guide to limit the side movement of fabric passing into said needle.

10. Fabric guiding attachment for sewing machines comprising a standard, an arm at the upper part thereof extending horizontally over which fabric is adapted to pass, a horizontal extension below said arm, a substantially flat hori-

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zontal guide frame secured to said extension and terminating adjacent to the needle of said machine, said guide frame being adjustable on said extension, one edge of said frame being at 45° to the line of travel of fabric being sewed, said fabric passing over said arm and on said frame across the front of said machine, then over said 45° portion and under said needle, the apex of said angle being adjacent said needle, said guide frame being secured to said extension a substantial distance laterally from said needle.

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