Nov. 20, 1945. M. SCHLOSS 2,389,388

AUTOMATIC DEVICE FOR STITCHING HAT BRIMS

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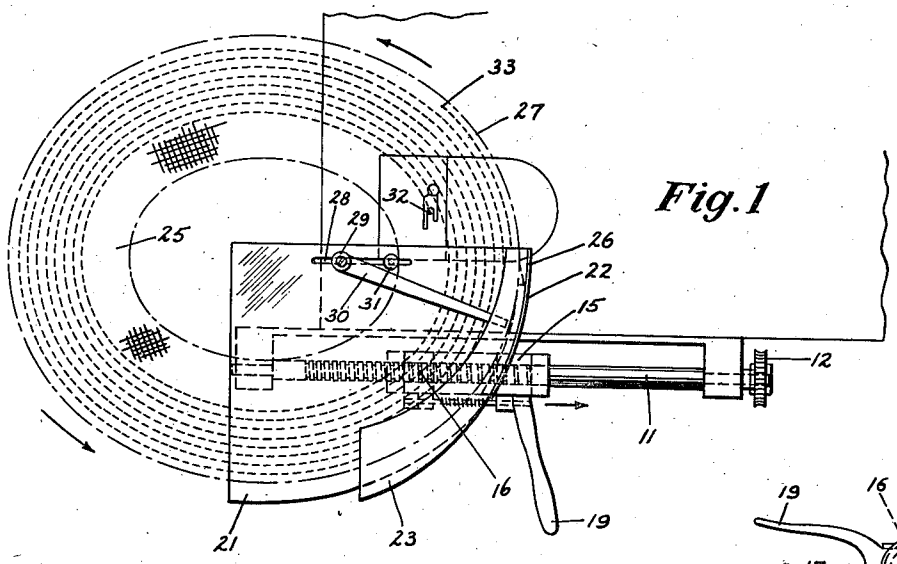


Fig. 1

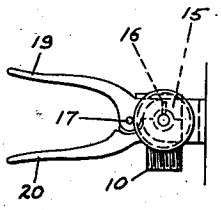


Fig. 3

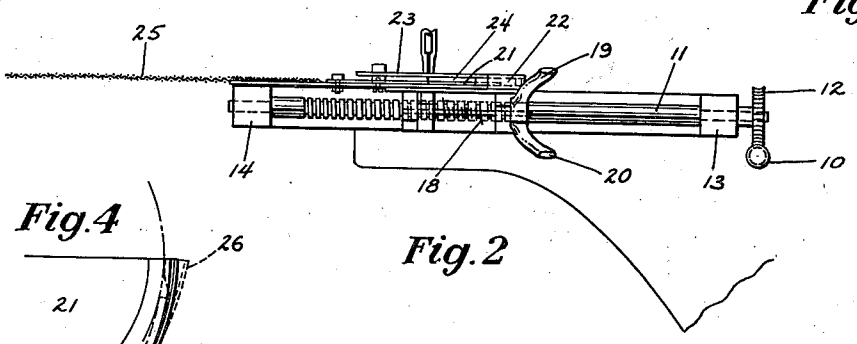


Fig. 2

Fig. 4

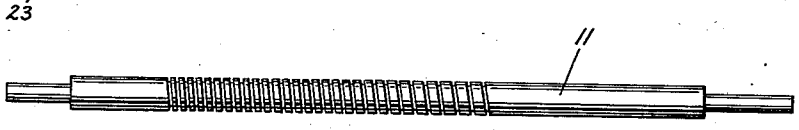


Fig. 5

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AUTOMATIC DEVICE FOR STITCHING HATBRIMS

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3 Claims. (Cl. 112—2)

This invention relates to an attachment for use with a sewing machine for automatically stitching oval-shaped flat hat-brims with spiral continuous stitches uniformly spaced apart.

More particularly, it is an object of my invention to provide an automatic device which will accommodate oval hat-brims of different dimensions and stitch same with continuous spiral stitches uniformly spaced apart.

A further object is to provide a screw shaft of uniform outside diameter and having threads of varying pitch upon which removable followers can travel.

A further object is to provide a hat-brim holder which can be easily adjusted to hold oval hat-brims of different sizes so that the hat-brim can revolve readily during the stitching operation.

Another object is to provide an automatic stitching device of simple construction which will permit an unskilled operator to produce the kind of precision stitching that could only be produced by one highly skilled and operating by hand.

Another object is to provide a hat-brim holder for stitching so that the hat-brims to be stitched can be easily inserted into the holder replacing the stitched hat-brim.

Still another object is to provide a device upon which bias brims may be stitched after the headsize is shirred.

For a fuller understanding of the nature and objects of my invention, reference is had to the following detailed description in connection with the accompanying drawing, in which:

Fig. 1 is a plan view of my device.

Fig. 2 is a front view of Fig. 1.

Fig. 3 is an end view of the follower upon the shaft.

Fig. 4 is an enlarged plan view of a part of the hat-brim holder showing the spring finger.

Fig. 5 is a plan view of the screw shaft upon which the follower rides.

Referring to the drawing, a shaft 10, located beneath the bed of the sewing machine, drives a screw shaft 11 of uniform outside diameter and varying pitch by means of gear 12. The shaft 11 has its bearings at 13 and 14 in suitable brackets, and is provided with split removable followers 15 having recesses and a pin 16 which are adapted to fit upon the threaded shaft 11 and a pin 16 which rides in the threaded groove so that, upon rotation of shaft 11, follower 15 is caused to move to the right. Follower 15 is hinged at 17 and is provided with a spring 18, so that when follower 15 is placed upon the screw shaft 11, there will be sufficient tension to retain the follower upon shaft 11. A pair of finger pieces 19 and 20 are used for separating the split follower 15 for removing the device from the threaded shaft 11.

Attached to the top portion of follower 15 is a bottom plate 21 having a vertical side portion 22 and a top portion 23 open at 24 so that hat-brims 25 of different sizes can be accommodated within the holder. The end of the side portion 22 has a spring finger 26 which resiliently rides upon the edge 27 of the hat-brim 25 during the stitching operation.

The bottom plate 21 has a slot 28 in which an adjustable pivot 29 attached to a resilient holding arm 30 is positioned. An adjustable revolvable post 31 is also positioned in slot 28 so that it can be adjusted to accommodate the width of the oval flat hat-brim 25 and revolve during the stitching of the hat-brim 25.

The operation of my device in connection with a stitching machine is as follows:

A flat oval hat-brim 25 is placed upon the bottom plate 21 of the holder and resiliently held in position by pivoted arm 30. The post 31 has been fixed to accommodate hat-brims of uniform width. Finger pieces 19 and 20 are pressed together opening the split follower 15 and is then placed upon threaded shaft 11 at the extreme left end with pin 16 resting in the groove of the thread of the shaft 11. The needle 32 of the machine is placed at the starting point 33 of the stitching. The operator then starts the machine causing gear 12 to revolve, which rotates the threaded shaft 11. The hat-brim 25 will be fed forward and pulled through the holder by the feed dogs of the stitching machine and at the same time the holder and follower 15 will move transversely to the right on the threaded shaft 11 since pin 16 rides within the groove of the thread.

Since the thread of shaft 11 is of varying pitch, as shown clearly in Fig. 5, the rows of stitching will be uniformly spaced apart compensating for the ever decreasing oval of the hat-brim 25. When the spiral stitching is completed, the operator stops the machine and can easily remove the holder by compressing finger pieces 19 and 20, thus opening the follower 15 for easy removal from shaft 11. Another holder containing a similar hat-brim 25 in position within the holder can then be attached and operated in the same manner. If the operator desires, he can use the same holder and move it to its original position at the extreme left by compressing the finger pieces 19 and 20. After removing of the stitched hat-

brim another can be easily inserted. However, production will be more rapid by the use of extra holders which can be loaded while the operator is stitching previously loaded hat-brims.

It is obvious that various changes and modifications may be made in the details of construction without departing from the general spirit of the invention, as set forth in the appended claims.

I claim:

1. In combination with a stitching machine, a holder adapted to hold a hat-brim for feeding movement thereof through the holder by the feed dog of the machine, said holder comprising a substantially flat bottom plate with an arcuate end, a curved side member of the same curvature as said arcuate end with a resilient spring finger at one end of said side member, a top plate, an opening between said top and bottom plate to permit hat brims of different dimensions to be stitched, a resilient movable holding arm for retaining the hat brim during the stitching operation, a split follower, finger pieces for opening said split follower against spring tension, a threaded shaft of uniform outside diameter and varying pitch, a pin in said follower adapted to ride within the thread of said threaded shaft for moving said follower and holder laterally of the line of feeding movement by the feed dog of said machine when said threaded shaft is rotated.

2. In combination with a stitching machine, a holder adapted to hold a hat-brim for feeding movement thereof through the holder by the feed dog of the machine, said holder comprising a top plate, a substantially flat bottom plate, and a curved side, said side having a spring finger at one end, a resilient adjustable holding arm pivoted upon said bottom plate for retaining the hat brim during the stitching operation, an adjustable post upon said bottom plate to accommodate hat brims of different sizes, a split follower, finger pieces for opening said split follower against spring tension, a threaded shaft of uniform outside dimension and varying pitch, a pin in said follower and adapted to ride within the thread of said threaded shaft for moving said follower and holder laterally of the line of feeding movement by the feed dog of said machine when said threaded shaft is rotated.

3. In combination with a stitching machine having a threaded shaft a holder adapted to hold a flat oval hat brim for feeding movement through the holder by the feed dog of the machine, said holder comprising a flat bottom plate having a curved end, a curved side member and a top plate, said side member having a resilient spring finger at one end thereof an opening between said top and bottom plate to accommodate hat brims of different dimensions, a slot in said bottom plate, an adjustable pivoted resilient holding arm for resiliently holding said hat brim in movable position during stitching, an adjustable revolvable post to accommodate different widths of hat brims whereby upon rotation of said threaded shaft said holder and said follower move laterally of the line of feeding movement by the feed dog of said machine.

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