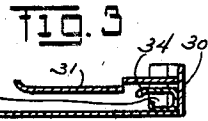


M. SCHLOSS

AUTOMATIC STITCHING DEVICE

Filed July 13, 1943



INVENTOR.
MORRIS SCHLOSS

BY *Irving Seidman*
HIS ATTORNEY

UNITED STATES PATENT OFFICE

2,373,784

AUTOMATIC STITCHING DEVICE

Morris Schloss, New York, N. Y.

Application July 13, 1943, Serial No. 494,543

2 Claims. (Cl. 112-2)

This invention relates to a device for use with stitching machines for stitching hat-brims of sailors' hats with continuous and spiral stitches.

More particularly, it is an object of my invention to provide a device which will automatically arrange spiral stitches uniformly spaced apart upon hat-brims and similar articles.

Another object of my device is to provide a removable holder which will accelerate the production of spiral stitching of hat-brims so that, while one device is in use, another device can be loaded with hat-brims ready for use. The ready removal of my device also saves the time of the mechanic in the event repair is necessary to the sewing machine.

Another object of my invention is to provide a holder that will reduce the friction between the holder and the threaded shaft to secure uniform stitching and to permit the sewing machine to run at a low speed thus reducing the wear and enhancing the life of the machine.

A further object of my invention is to provide an opening which may be adjusted to the size of the welt of the hat-brim to be attached, at the same time keeping the fabric in place during the stitching operation.

A further object of my invention is to provide adjustable means upon the stitching device for adjustment to compensate for any tendency of the fabric to move on the bias, and for adjustment depending upon the size of the stitches and the speed with which the hat-brim moves through the holder.

A further object of my invention is to provide a protruding or regulating member for lining up the holder with the stitching foot of the machine.

A further object of my invention is to provide a device which is extremely simple in operation, and efficient and positive in its operation, and in which loading is facilitated.

For a fuller understanding of the nature and objects of my invention, reference is made 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 perspective view of the device, shown in Fig. 1, with parts broken away.

Fig. 3 is a view taken through line 3-3 of Fig. 1.

Fig. 4 is an elevational view showing the threaded followers of the device in open position.

Referring to the drawing, a shaft 10, located beneath the bed of the sewing machine, drives a threaded shaft 11 by means of worm gears 12 and 13. The shaft 11 has its bearings at 14 and 15 in suitable brackets, and is provided with split

removable followers 16 having threaded semi-circular recesses and fit upon the threads of shaft 11 so that, upon rotation of shaft 11, followers 16 are caused to move toward the right. Followers 16 are attached to plates 17 and 18, which are hinged at 19, the hinge 19 being provided with a spring 20, so that when the followers 16 are set upon threaded shaft 11, there will be sufficient tension to retain the followers upon shaft 11. Attached to plates 17 and 18 are a pair of finger pieces 21 and 22, respectively, used for separating the split followers 16 for removing the device from the threaded shaft 11.

Attached to the top followers 16 is a plate 23, having threaded holes at each end. A plate 24, having slots 25 at each end, is attached to plate 23 by set screws 26 so that plate 24 may be adjusted. Washers 27 and 28 are provided for use between the screw 26 and plates 23 and 24. Attached to plate 24 is a bottom member 29, having vertical sides 30 and top portions 31 and 32. An opening 37 exists between the ends of top portions 31 and 32 to facilitate loading. Members 29 to 32, inclusive, are made of metal having some degree of resiliency, and the part formed by these members is convex in shape and preferably of uniform width and of approximately the width of the hat-brim to be stitched. The fabric to be stitched is placed upon the top of the bottom member 29 and is kept in position by means of the top portions 31 and 32 and a small opening 33 which is created by a bent piece of metal 34. Metal piece 34 is flexible and can be bent and adjusted to the approximate size of the welt of the hat-brim to be attached. The right side member 30 has a protruding extension 35 which may be bent to line up the holder against the stitching foot of the sewing machine.

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

A hat-brim, preferably the width of the holder, is placed upon the bottom 29 of the holder so that the entire width of the hat-brim is within the vertical sides 30 of the holder. If the hat-brim has a welt at one end, which is usually the case, the welt falls within the opening 33. The metal member 34 can be slightly bent to hold the welt resiliently during the stitching operation. In the event the hat-brim has no welt, the metal member 34 can be adjusted to resiliently maintain the hat-brim in sewing position. The finger pieces 21 and 22 are pressed together in order to open the split followers 16. The followers 16 in open position, as shown in Fig. 4, are then placed upon the threaded shaft 11 at the extreme left end of

the shaft 11 with extension 35 against the right side of the foot of the sewing machine. The operator then starts the machine, causing shaft 10 to revolve, which rotates threaded shaft 11. The hat-brim will be fed forward and pulled through the holder by the feed dogs 36 of the sewing machine, and at the same time the holder will move transversely to the right on the threaded shaft 11 since the followers 16 ride upon it. The positive gripping of the followers 16 and shaft 11 prevents any wobbling of the holder so that perfect and uniform stitching is obtained, reducing wear and friction between the followers and the threaded shaft.

A uniform spiral line of stitching is formed upon the hat-brim within the holder by the sewing machine. When the line of stitching is completed, the operator stops the machine and can easily remove the holder by compressing finger pieces 21 and 22, thus opening the split followers 16 for removal from the threaded shaft 11. Another holder containing a hat-brim within the holder ready for stitching can then be attached and operated in like manner.

In the event the hat-brim has a tendency to move within the holder or the speed of the machine causes the hat-brim to veer to the left, plate 24 can be adjusted by loosening set screws 26 and changing the position of the plate to compensate for such tendency.

It is obvious that various changes and modifications may be made in the details of the 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

mechanism, a holder adapted to hold a hat-brim so that the hat-brim can be pulled through said holder said holder having a bottom, sides and a split top bendable at the free ends, a bendable welt guide, a pair of plates having means for adjusting the position of said holder by adjustment of the upper plate, threaded split followers attached to one of said plates, finger pieces for opening said split followers against spring tension, a threaded shaft adapted to receive said split followers for moving said followers and holder laterally to the line of stitching of said machine when said threaded shaft is rotated.

2. In combination with a stitching machine, a holder adapted to hold a hat-brim so that it can move through said holder against frictional engagement, said holder having bendable top plates with an opening between said plates for easily inserting and guiding said hat-brim, a flexible adjustable metal piece at one end of said holder adapted to frictionally engage and guide the welt of said hat-brim, an extension protruding from said holder for positioning said holder against the stitching foot of said stitching machine, means for adjusting said holder, opposed split followers interiorly threaded and adapted to grip a rotatable threaded shaft, spring means for maintaining said split followers together, finger pieces attached to said followers for separating said followers for removal from said shaft and means for rotating said threaded shaft whereby when said split followers grip said rotating shaft said holder will move with said hat-brim transverse to the line of stitching to produce a uniform and even spiral line of stitching upon said hat-brim.

MORRIS SCHLOSS.