May 29, 1945. R. J. BEYER 2,377,204

PRESSER FOOT FOR RIBBON BINDINGS

Filed July 12, 1943

Fig. 1.

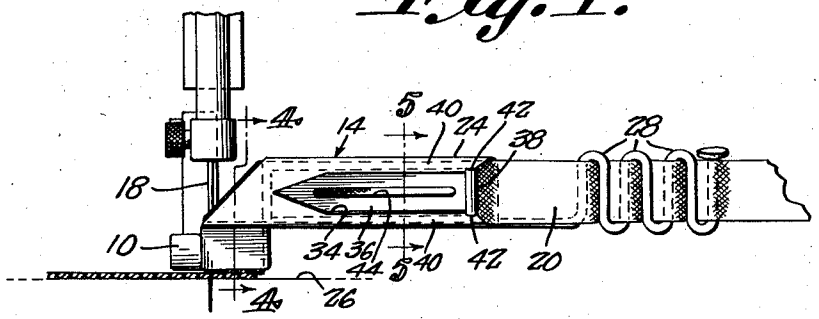


Fig. 2.

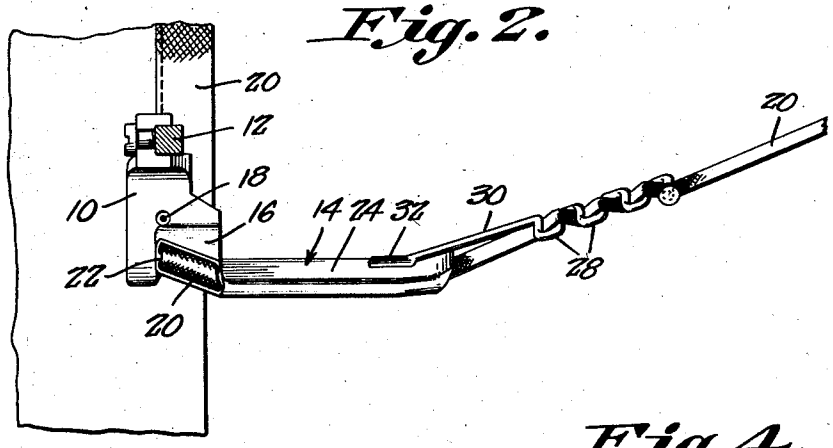


Fig. 3.

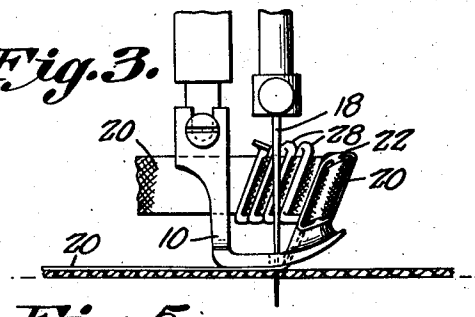


Fig. 4.

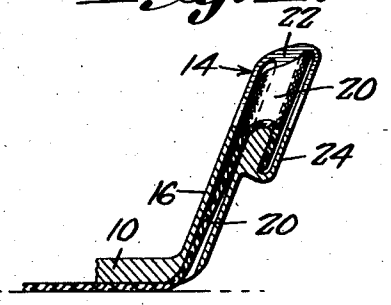


Fig. 5.

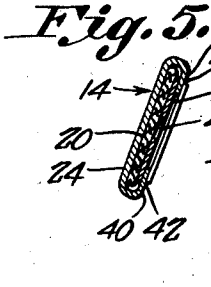
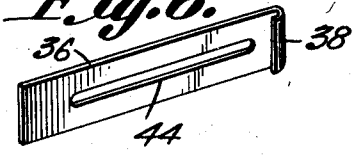


Fig. 6.



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PRESSER FOOT FOR RIBBON BINDINGS

Rudolph J. Beyer, New Britain, Conn.

Application July 12, 1943, Serial No. 494,382

1 Claim. (Cl. 112—152)

My invention relates to sewing machines, and has among its objects and advantages the provision of an improved presser foot for ribbon binding.

The conventional type of ribbon foot employs a straight and vertical tube attached to the presser foot. The roll of binding is located directly above to permit the binding to feed straight down to the foot. This is objectionable in that the needle and the work are masked from the view of the operator. Such an arrangement is not satisfactory for high speed production.

Accordingly an object of my invention is to provide a device of the type described wherein the binding ribbon is fed from the side of the presser foot so as to give the operator a clear view of the needle and the work. The presser foot is so designed as to permit the binding to be applied at high machine speeds, with the binding evenly stitched and lying smooth on the garment.

In the accompanying drawing:

Figure 1 is a front view.

Figure 2 is a top view.

Figure 3 is a side view.

Figure 4 is an enlarged sectional view along the line 4—4 of Figure 1.

Figure 5 is a sectional view along the line 5—5 of Figure 1, and

Figure 6 is a perspective view of a binding supporting plate.

In the embodiment of the invention selected for illustration, I make use of a pressure foot 10 for connection with the presser bar 12 in the usual manner. To the presser foot is welded or otherwise secured a strip guide 14 having a short upstanding tube part 16 arranged in slight diverging relationship with the sewing machine needle 18. This part guides the strip 20 underneath the presser foot 10.

The part 16 is open at its upper end and the strip passes over a guide bar 22 arranged at an angle of 45 degrees to the vertical when viewed according to Figure 1. The strip guide 14 includes a horizontal tube part 24 arranged edgewise to the work supporting machine face 26, but spaced therefrom and angled slightly to the vertical, as shown in Figure 5. The strip 20 is threaded through the tube part 24 and is threaded through wire loops 28 for applying tension to the strip. The loops 28 are bent in a wire 30 welded at 32 to the back face of the tube part 24.

The front side of the tube part 24 is cut out at 34 and a thin metal strip 36 is inserted in this tube part. Figure 6 illustrates the contour of the strip 36, which strip is folded back upon itself at one end, as at 38, with the fold welded to the flanges 40 of the tube part 24, as at 42.

The strip 36 is slightly wider than the slot 34 and lies underneath the flanges 40, but the strip is detached from the flanges throughout its entire length with the exception of the welded or soldered connections 42, and the strip is so attached to the tube part as to place slight tension on the ribbon or strip to steady the latter in its passage through the tube part 24, but this tension does not replace the tensioning loops 28. A slot 44 is provided in the strip 36.

In operation, the ribbon or strip 20, such as is used to finish off the bottoms of ladies' coats and the like, is cut diagonally across its starting end and the pointed end of the strip is then threaded through as many loops 28 as are necessary to provide the desired tension on the particular strip being used. The pointed end is then inserted in the tube part 24, and a pointed instrument may be manipulated in the slot 44 for feeding the end of the strip through the tube part. The strip is then bent about the bar 22 and is threaded through the tube part 16 to lie underneath the presser foot 10, after which the presser foot is ready for operation.

The strip folds over the bar 22 without wrinkling or stripping of the edges of the strip. The tube part 16 is so located with respect to the needle 18 as to bring the stitching close to and parallel with the edge of the strip.

The tube part 24 extends horizontally from the presser foot so as to be out of the way and give the operator a good view of the needle, the work and the work operation. The strip requires no attention from the operator until it is necessary to change the spool. The strip is applied uniformly at full machine speeds.

Without further elaboration, the foregoing will so fully explain my invention, that others may, by applying current knowledge, readily adapt the same for use under various conditions of service.

I claim:

A strip guide for use with a sewing machine presser foot, comprising an elongated first tube located to one side of the presser foot and extending horizontally and slightly upwardly therefrom and shaped to carry the binding strip edgewise and having an elongated opening in one side, a second tube having its axis at an angle to the first tube and arranged for guiding the strip underneath the presser foot, a bar arranged at an angle of 45 degrees from the horizontal for bending the strip and guiding the latter in its passage from the first tube to the second tube, an elongated plate like member formed with a slot and lying inside the first tube and back of the opening therein, and attached at one end to the first tube to press gently against one face of the strip.

RUDOLPH J. BEYER.