(No Model.) 2 Sheets—Sheet 1.

# L. ESCHNER.

## GUIDE FOR DOUBLE NEEDLE SEWING MACHINES.

No. 504,571. Patented Sept. 5, 1893.

FIG. 1.

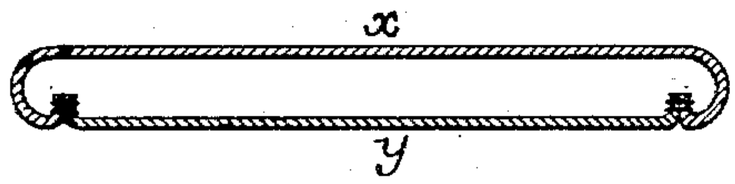



FIG. 2.

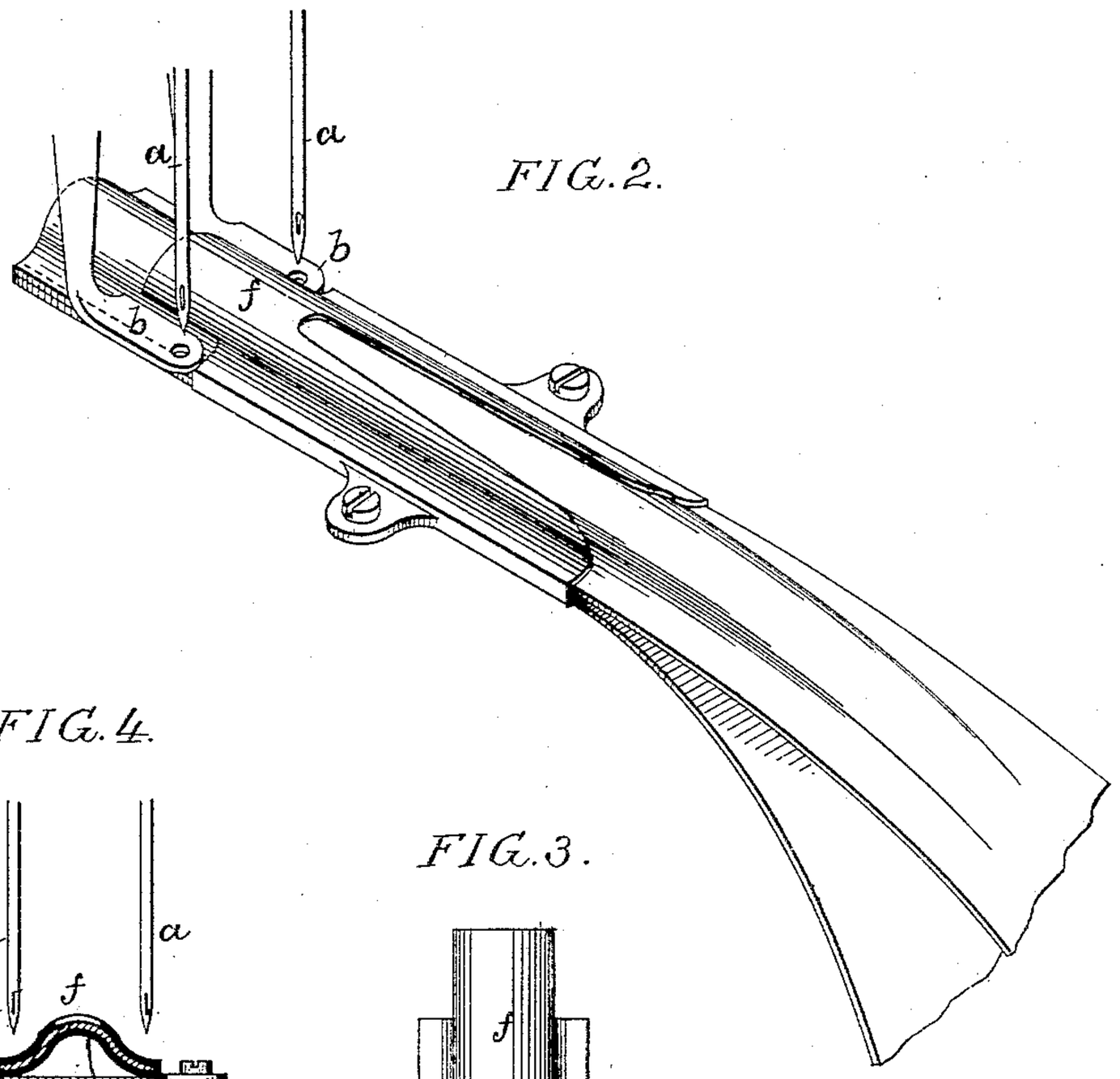



FIG. 4.




FIG. 3.

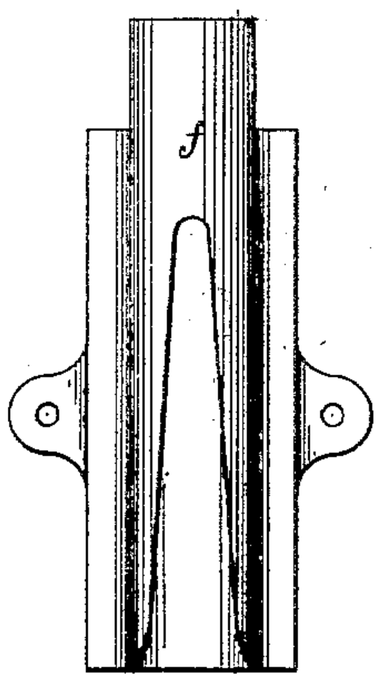



FIG. 5.

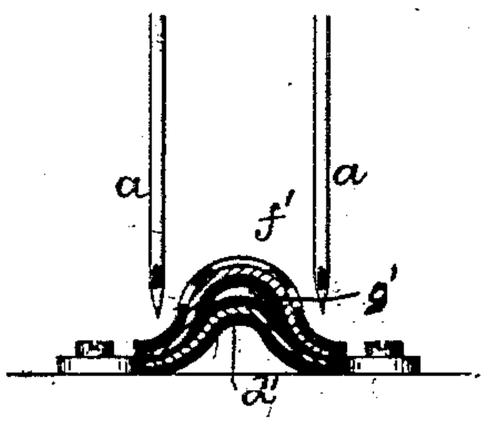
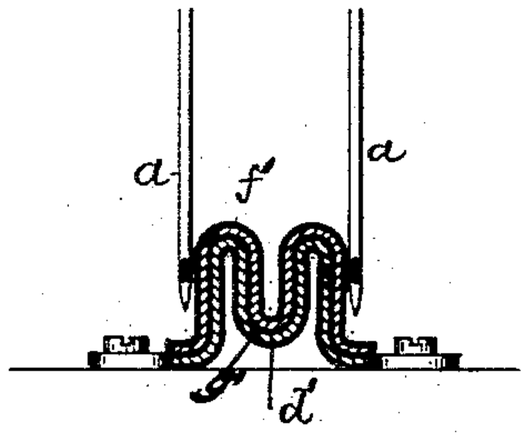



FIG. 6.

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(No Model.) 2 Sheets—Sheet 2.

# L. ESCHNER.

## GUIDE FOR DOUBLE NEEDLE SEWING MACHINES.

No. 504,571. Patented Sept. 5, 1893.

FIG. 7.

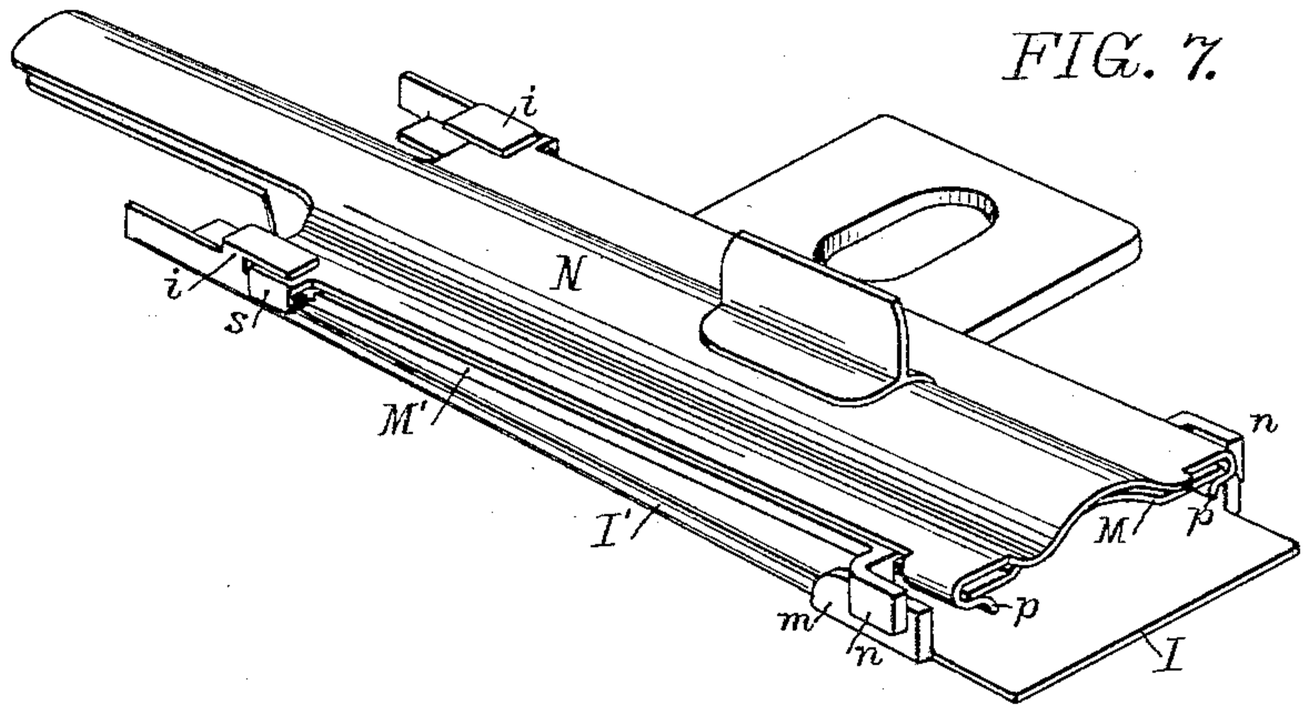



FIG. 8.

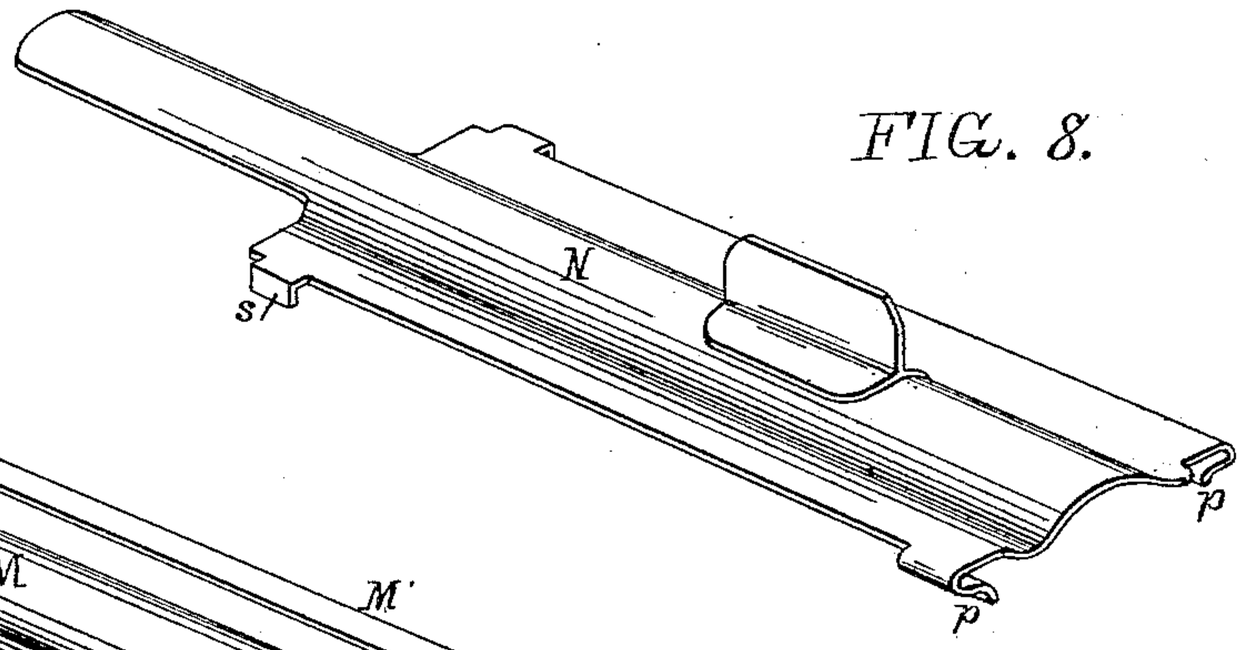



FIG. 9.

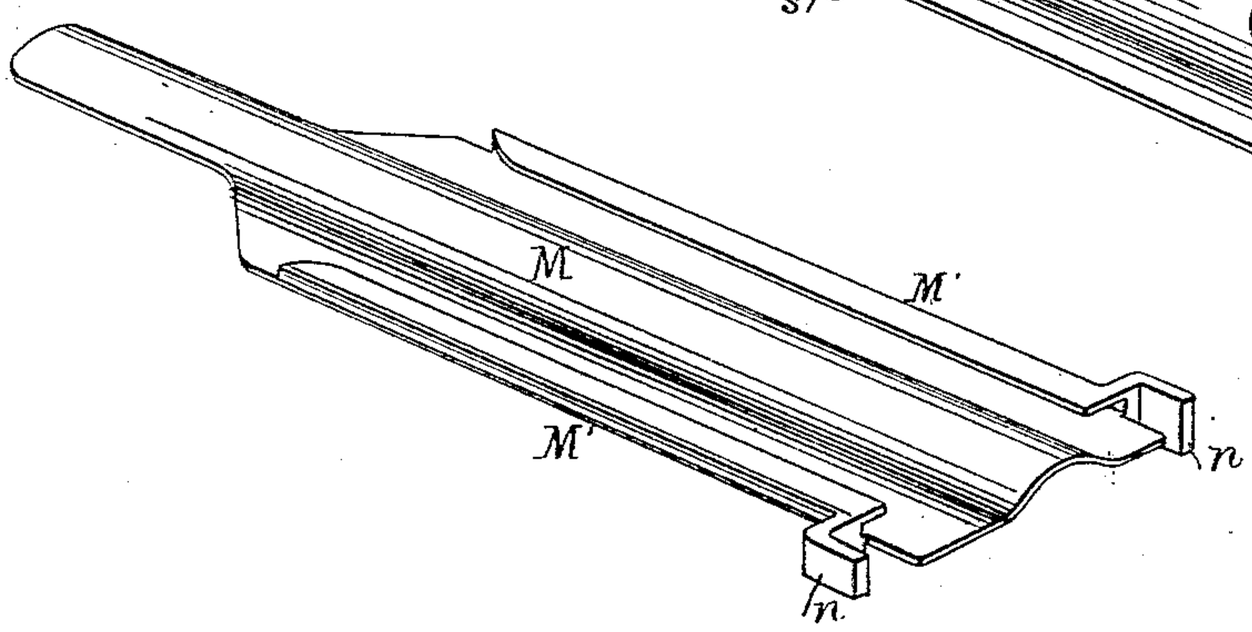
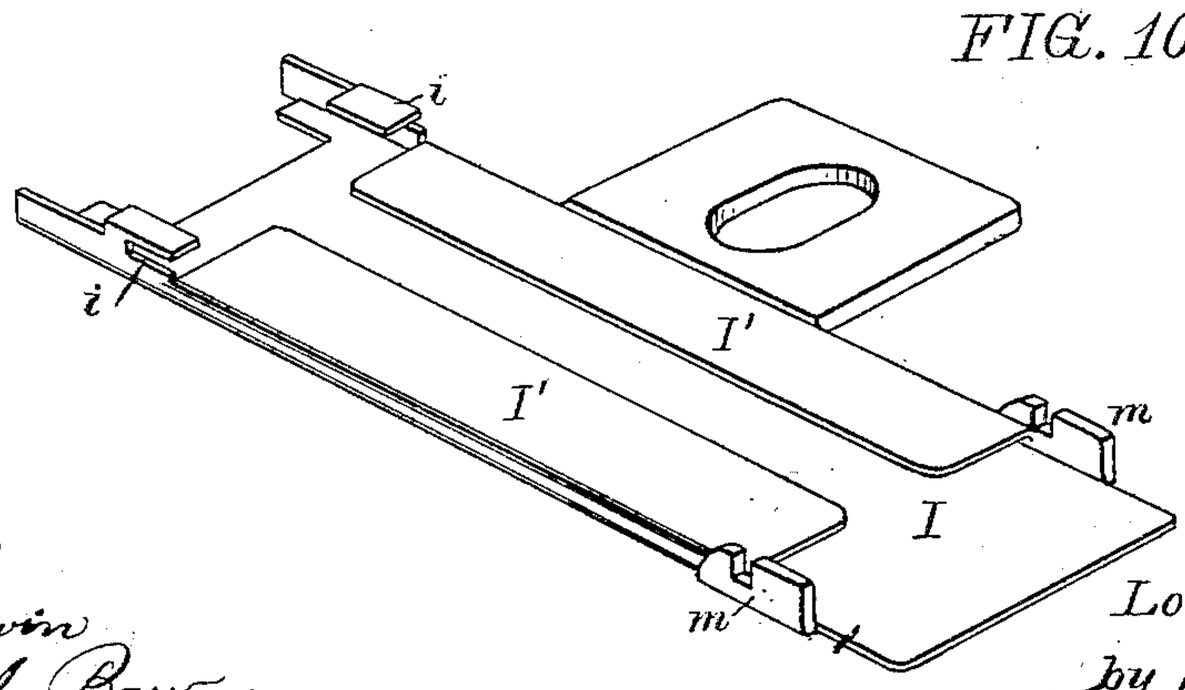



FIG. 10.

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# UNITED STATES PATENT OFFICE.

LOUIS ESCHNER, OF PHILADELPHIA, PENNSYLVANIA.

## GUIDE FOR DOUBLE-NEEDLE SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 504,571, dated September 5, 1893.

Application filed May 25, 1893. Serial No. 475,441. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS ESCHNER, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Guides for Double-Needle Sewing-Machines, of which the following is a specification.

The object of my invention is to provide a double needle sewing machine with guides of such character that tubes of fabric, such as are employed for the neck bands or bodies of scarfs, bows, ties or other articles of neck wear, or which may be used for belts, shoulder straps, garters, suspenders, &c., can be made with greater facility and at less cost than by the methods and mechanism now in use, and this object I attain in the manner hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1, is an enlarged sectional view of a tube such as is required in the manufacture of different articles of neck wear or other apparel, as above set forth. Fig. 2, is a perspective diagram illustrating a duplex guide constructed in accordance with my invention for use in making such a tube. Fig. 3, is a plan view of the guide. Figs. 4, 5 and 6, are diagrams illustrative of various forms of the said guide. Fig. 7, is a perspective view of a special form of guide embodying the invention; and Figs. 8, 9 and 10, are perspective views of the parts of said guide detached from each other.

The usual tube for the neck band or body of an article of neck wear consists of two strips, namely, the face $x$ usually of expensive silk or satin, and the back $y$ of inferior or less expensive material, these two strips being sewed together at the edges, and the back strip being of less width than the face strip, so that when the tube is flattened the face strip extends beyond the edges of the flattened tube and some distance on the back of the same, so that the backing strip of the band is not exposed at the edges. The method now generally in use for making such neck bands or bodies for scarfs, ties, or other articles of neck wear is to cut the strips to the proper length and width and sew them together, first along one edge, and then along the other edge, either by hand or machine, while the strips are face to face, the tube thus formed being then turned inside out. This mode of making the tube is tedious and expensive even when a machine is used for sewing the strips, for a careful and experienced attendant is required for each machine. Each band requires two sewing operations, and more or less time is necessarily lost by reason of the frequent starting and stopping of the machine, and between the sewing operations while the pieces are being picked up and properly applied to each other and adjusted to the machine. By the use of the guide forming the subject of my present invention, however, I can use facing and backing material in long strips of the proper width, can form both lines of stitches simultaneously and can impart the proper fullness to one or both strips.

The sewing operation is performed by a machine having two needles $a$ located at a distance apart, determined by the width of the narrowest band or tube to be produced. The two strips, one of facing fabric and the other of backing fabric, being properly disposed with reference to the needles $a$ of the machine are directed to the needles and beneath the presser feet $b$ through the guides $d$ and $f$, which are separated by a transverse partition $g$ (Fig. 4) or $g'$ (Figs. 5 and 6) both guides providing bearings one above another for the edges of the strips and the guide $f$, which directs the facing strip, being curved or otherwise shaped between said edge bearings, so that the facing strip will have a certain amount of fullness imparted to it, as shown for instance in Fig. 4, this being necessary owing to the fact that the said facing strip is wider than the backing strip, while the edges of the two strips should bear the same relation to the needles $a$.

The same machine may be used for the production of bands of different widths by changing the form of the guides or gages so as to impart more or less fullness to both the face and back strips, as required, before said strips reach the needles, the fullness of the face strip being in excess of that of the backing strip.

In Figs. 5 and 6 I have shown two different forms of guides for accomplishing this result, both the under guide $d'$ and the upper guide $f'$ in both of these cases being curved or corrugated between the edge bearings.

It is advisable to carry the central portion of the upper guide, or of both guides, in structures such as shown in Figs. 5 and 6, forward some distance in advance of the edge guides, as shown in Figs. 2 and 3, in order that said central portion of the guide may project forward between the needles and presser feet and retain its control of the fulled portion of the strip or strips until the sewing of the edges of the same has been completed. After the strips have been sewed together at the edges throughout the entire length of the strip, the latter is cut transversely into sections of the proper length for the articles to be produced. The top plate is, by preference, slotted so as to facilitate the manipulation of the upper strip on first introducing the same into the guide.

It will be advisable in many cases to construct the guide of separable parts, both for convenience of manufacture and for the purpose of facilitating the introduction of the strips of fabric into the guides. In Figs. 7 to 10 I have shown one form of guide thus constructed.

The base plate I of the guide has opposite folded edges I′ forming the edge guides for the lower strip and it also has notched plates *i* near the front end and notched lugs *m* near the rear end. The intermediate plate M which is the equivalent of the transverse partition plate *g g′* of the other constructions has inturned edges M′ forming the edge guides for the upper strip, and a raised or bowed central portion for imparting the desired fullness to said upper strip, said intermediate plate being held in position longitudinally by means of wings *n* which engage with the notched plates *m* of the base plate. The upper plate N fits over the intermediate plate M and serves to confine the upper strip thereto, said upper plate having rear wings *p* for engaging with the rear edges of the intermediate plate and front edges which enter the notched plates *i* of the base plate so as to retain the top plate in its proper vertical position, lateral retention being effected by means of lugs *s* which bear upon the sides of the plates *i*.

The guide shown in Figs. 7 to 10 may be regarded as the preferable form of the invention, the guides shown in Figs. 2 to 6 being modified forms embodying simply the main features of said invention.

Although I have illustrated the guide as imparting fullness in all cases to the upper strip, it will be apparent that it is immaterial which of the strips has the excess formed in it.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. The within described guide for double needle sewing machines, said guide having a transverse partition whereby there are formed at each edge, two vertical portions one above the other, constituting bearings for the edges of two superposed strips, the guide for one of the strips being curved between the opposite edge bearings so as to accommodate fullness in said strip, substantially as specified.

2. The within described guide for double needle sewing machines, said guide having two portions forming edge bearings for two strips, one above the other, and having a central portion curved or bowed to accommodate fullness of the strip or strips, said central portion projecting forward beyond the edge bearings of the guide, substantially as specified.

3. The within described guide for double needle sewing machines, said guide having portions forming edge bearings for the two strips, one above the other, the guide, for one of the strips being curved or bowed between the edge bearings to accommodate fullness in said strip, and the upper guide being composed of two plates of which the upper plate is detachable, substantially as specified.

4. The within described guide for double needle sewing machines, said guide consisting of a base plate, an intermediate plate, and a top plate detachable from each other, said plates forming edge bearings for two strips, one above the other, the guide for one of the strips being curved or bowed between the edge bearings so as to accommodate fullness in said strip, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LOUIS ESCHNER.

Witnesses:

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JOSEPH H. KLEIN.