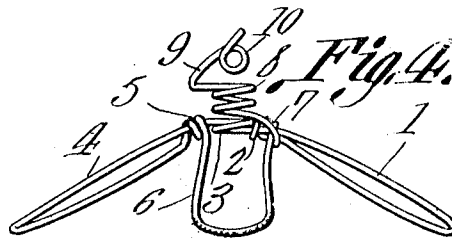
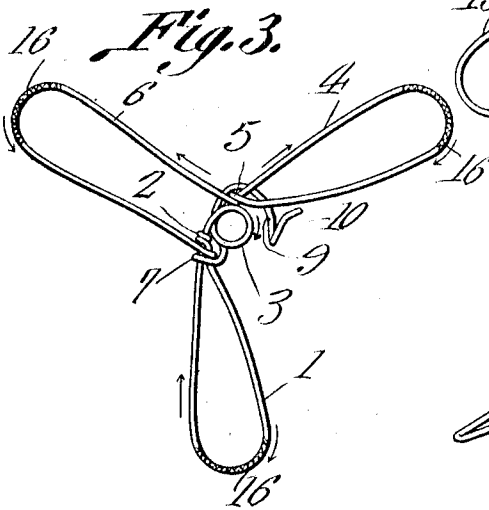
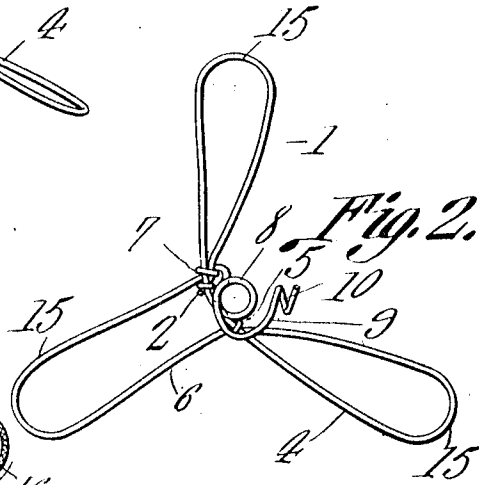
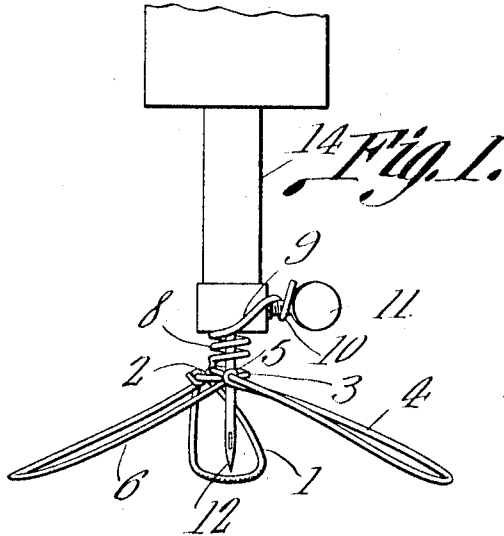


L. M. TYNES.
ATTACHMENT FOR SEWING MACHINES.
APPLICATION FILED SEPT. 17, 1910.

991,911.

Patented May 9, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

LUCIUS M. TYNES, OF GLOSTER, MISSISSIPPI.

ATTACHMENT FOR SEWING-MACHINES.

991,911.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed September 17, 1910. Serial No. 582,530.

To all whom it may concern:

Be it known that I, LUCIUS M. TYNES, a citizen of the United States, residing at Gloster, in the county of Amite and State of Mississippi, have invented a new and useful Attachment for Sewing-Machines, of which the following is a specification.

The device forming the subject matter of this application, is an attachment for sewing machines, of the general type shown in my former patent, numbered 902,698, the function of the attachment being to hold in place, a piece of cloth, while the same is being embroidered in a sewing machine. In the device shown in my former patent, above referred to, and in other similar devices, so far as I am advised as to the state of the art, no provision is made for drawing the cloth taut, along lines radiating from a common center, which center is the point where the needle pierces the cloth.

One object, therefore, of the present invention, is to provide an embroidery attachment consisting of a plurality of depending, radially disposed arms, adapted to engage the material simultaneously, whereby the material will be stretched taut, away from a common center, during the embroidering operation.

Another object of the invention is to provide a device of the character hereinafter described, provided with a spring member adapted to hold the device upon the needle bar of the sewing machine, and to fashion, in the body of the device, a stop, adapted to receive the spring member.

Another object of the invention is to provide a device of the character described, which may be fashioned cheaply from a single strip of material.

In the drawings,—Figure 1 is a front elevation, showing the device applied to the needle bar of a sewing machine; Fig. 2 is a top plan; Fig. 3 is a bottom plan; and Fig. 4 is an elevation, the device being turned slightly from the position shown in Fig. 1.

The device herein disclosed is fashioned from a strip of resilient material, preferably wire, the wire being bent upon itself, to form a one-piece structure.

The construction of the device will now be traced out, and the description will probably be better understood if the arrows in Fig. 3 are noted.

The strip of material is, in the first instance, bent upon itself to form a loop shaped arm

1. One end of this strip of material is then wrapped about the body of the strip, as shown at 2, in order to effect a closure of the loop shaped arm 1. The strip is then bent into a single coil, to form an eye 3, located approximately at the center of the device. The strip is then bent upon itself to form a loop shaped arm 4, disposed approximately at an angle of 120° to the arm 1. The strip is then bent about itself, as shown at 5, to effect the closure of the inner end of the arm 4, the strip being carried outwardly and bent upon itself to form a loop shaped arm 6, located approximately 120° from the arms 1 and 4. The strip is then wrapped about the arm 1, intermediate the bend 2 and the free end of the arm 1, as shown at 7. The strip is thence carried upwardly and bent to form a helical spring 8, positioned above the eye 3. The free end of this helical spring is carried laterally as at 9, and bent to form an eye 10, adapted to be engaged by the set screw 11, whereby the needle 12 is held in the needle bar 14 of the sewing machine.

It is to be noted that all of the arms 1, 4 and 6 project substantially radially from a common center. These several arms depend at their free ends so as to press upon the material; being resilient, these arms 1, 4 and 6 will, as the needle bar 14 descends, engage the material at their free ends and serve to stretch the material away from a common central point, the said central point being the place where the needle 12 will puncture the material. By reason of the fact that the arms are loop shaped, and rounded at their ends, as shown at 15, the material will not be torn during the operation of sewing. In order that the arms 1, 4 and 6 may have a proper hold upon the material, they may be serrated or roughened, upon their lower faces, as denoted by the numeral 16, and shown in Fig. 3.

It will be seen that the helical spring portion 8 of the device incloses the needle 12 as does also the eye 3. During the sewing operation, the helical spring 8 will be compressed to a greater or less degree, and the eye 3, being positioned directly beneath the helical spring 8, will serve as a stop for said spring. The spring 8 acts to prevent the arms 1, 4 and 6 from being pressed too harshly against the material, during the descent of the needle bar 14, the helical spring 8 receiving the initial thrust of the needle bar. When, however, the helical

spring 8 has been compressed to some extent, the said spring will come into contact with the eye 3, the eye 3 carrying the thrust of the needle bar 14 downwardly into the arms 1, 4 and 6. By reason of the fact that these arms are downwardly inclined toward their outer ends, the arms will have the required resiliency, and will, at the same time, be positioned to engage the material properly.

10 When the device is in operation, the material will be stretched tightly to receive the needle 12, and, by referring to Fig. 1, it will be seen that the construction of the device is such that the point of the needle may at all times be closely observed by the operator, none of the arms 1, 4 and 6 being positioned between the needle 12 and the operator.

Having thus described the invention, what is claimed is:—

20 A device of the class described comprising depending arms, connected at their inner ends, and free at their outer ends, the arms radiating from a common center, which center is the point where the needle of the ma-

chine with which the device is assembled, 25 pierces the cloth to be embroidered, two of said arms being located upon opposite sides of a diameter in which a third arm is located, said two arms upon the one hand and the third arm upon the other hand, being 30 located upon opposite sides of another diameter disposed at right angles to the first specified diameter, whereby, when the device descends with the needle bar of the sewing machine, the free ends of all of the arms 35 will engage the material to be embroidered, stretching the same along lines radiating from the needle of the sewing machine, thereby rendering the material taut; and means for securing the device to the needle 40 bar of a sewing machine.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

LUCIUS M. TYNES.

Witnesses:

F. E. DIXON,

T. L. WILKINSON.