No. 848,396. PATENTED MAR. 26, 1907.

C. E. REARDON.

EMBROIDERY ATTACHMENT FOR SEWING MACHINES.

APPLICATION FILED DEC. 7, 1905.

Fig. 1.

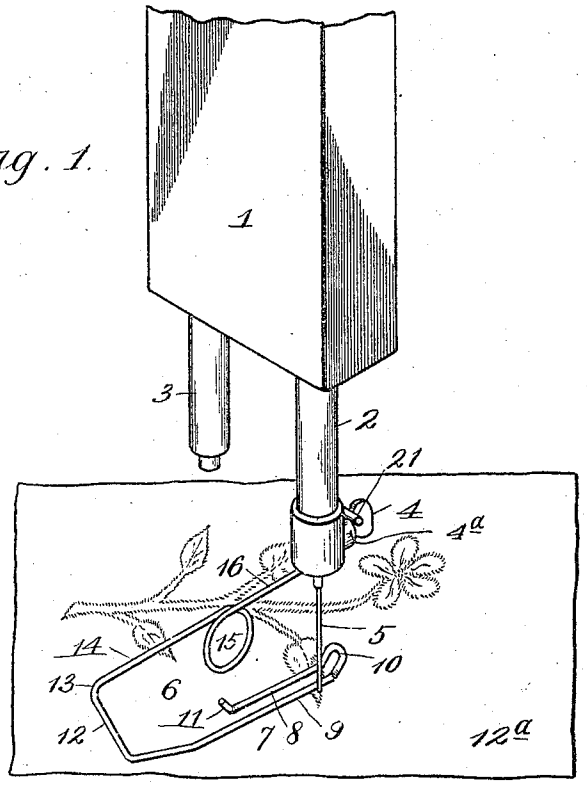


Fig. 2.

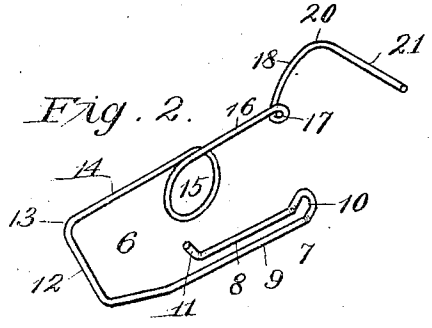
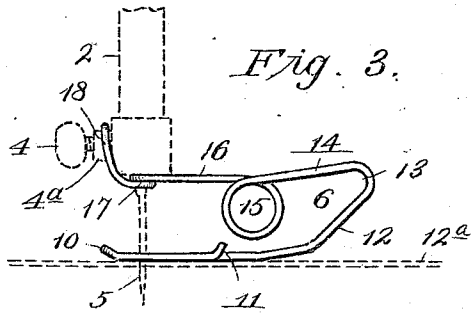


Fig. 3.



Witnesses:

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EMBROIDERY ATTACHMENT FOR SEWING-MACHINES.

No. 848,396. Specification of Letters Patent. Patented March 26, 1907.

Application filed December 7, 1905. Serial No. 290,702.

To all whom it may concern:

Be it known that I, CHARLES E. REARDON, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Embroidery Attachments for Sewing-Machines, of which the following is a specification.

My invention relates to improvements in embroidery attachments for sewing-machines; and my object is to provide a simple and inexpensive device of this character which may be readily attached to the needle-bar of a sewing-machine and whereby fancy stitching or embroidery-work may be accurately accomplished.

The device is substituted for the ordinary presser-foot of the sewing-machine, so that the work may be moved in any direction, thus enabling the operator to readily follow any pattern. Devices of this character usually encircle the lower portion of the needle, and thus in a measure obscure the pattern, making it difficult for the operator to follow the same. The lower portion of my device is arranged at the rear of the needle, and consequently does not cover that portion of the pattern in front and at the sides of the needle. By thus exposing the work at these points the most intricate pattern may be easily followed.

In order that the invention may be fully understood, reference will now be made to the accompanying drawings, in which—

Figure 1 represents a perspective view of a portion of a sewing-machine head and the improved attachment in position upon the needle-bar of said head. Fig. 2 is a slightly-enlarged perspective view of the device. Fig. 3 is a side elevation of the device secured to the needle-bar, the latter being in dotted lines.

In said drawings, 1 designates the sewing-machine head, provided with the customary needle-bar 2 and presser-foot bar 3, from which latter the presser-foot has been removed. Needle-bar 2 is provided with a thumb-screw 4 for clamping needle 5 in the lower portion thereof.

6 designates my improved device, which consists of a single piece of spring-wire bent in substantially U form.

7 designates the foot of the device, which is brought down into contact with the work and reliably holds the latter in position when penetrated by the needle. Said foot comprises two parallel members 8 and 9, united at their outer ends by a loop 10. Loop 10 and the inner terminal 11 of member 8 are turned upwardly to prevent them from engaging or catching in the fabric 12ª. Member 9 extends beyond member 8 and communicates with an upturned oblique member 12, united at its upper end by a loop 13 to an arm 14, communicating at its inner end with a resilient upright coil 15, which in turn communicates with another arm 16, provided at its opposite terminal with a horizontal eye 17, embracing the upper portion of the needle and engaging the under side of the needle-bar. (See Fig. 3.)

18 designates a shank communicating at its lower end with eye 17, thence extending upwardly and united by a loop 20 to a finger-hold 21, extending at right angles to shank 18.

In order to secure the device in an operative position, the needle-bar and needle are raised to the end of their upward stroke. The device is then compressed to bring eye 17 beneath the point of the needle, over which latter it is slipped until it engages the under side of the needle-bar. It is then held in position by grasping the finger-hold 21 and springing the latter over boss 4ª on the lower portion of the needle-bar. Thus with the eye pressing firmly upward against the under side of the needle-bar and the finger-hold pressing downwardly upon the boss it is obvious that the device cannot accidentally move out of its proper position, as the tension thus produced firmly holds the eye in engagement with the under side of said needle-bar, so that the foot of the device cannot wabble in any direction. The broad bearing-surface provided by arms 8 and 9 also prevents the foot from shifting upon the fabric when brought down into contact therewith. When the device is in position, said foot is at the rear of the needle, so that that portion of the pattern in front of the needle is in plain view and may be readily followed. Member 9 of the foot may in practice bear against the needle, but will exert no pressure thereon, as it is entirely supported and held in position by means of eye 17 and the finger-hold. Consequently it cannot break the needle. By uniting arms 14 and 16 by the resilient coil 15 arm 14 will at all times remain in substantially a horizontal position, and thus prevent the eye from exerting undue pressure upon the needle when the device is compressed, as practically all of the movement takes place

from loop 13 to coil 15. By placing coil 15 close to eye 17 and arranging it in a vertical position it not only permits a certain amount of independent movement in a vertical plane between arms 14 and 16, but prevents eye 17 from tipping and binding upon the upper portion of the needle.

As the operation of devices of this character is well understood, it is sufficient to state that the device acts as a yielding presser-foot, remaining in contact with the fabric long enough to permit the completion of the shuttle-loop and then rising with the needle until it clears the fabric, so that the work may be inspected and the fabric shifted, as required by the pattern.

From the above description it is apparent that I have produced a device which is simple in construction, durable in operation, and well adapted for the purposes intended.

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

1. A device of the character described consisting of a single piece of wire provided at its lower portion with a foot comprising two parallel members united at their outer ends by an upwardly-bent loop, an upwardly-extending oblique member communicating with the inner end of one of said foot members, an arm communicating with the upper terminal of said oblique member, a resilient coil communicating with the inner terminal of said arm, another arm communicating with said coil, an eye communicating with the outer terminal of the last-mentioned arm, a shank communicating with said eye, and a handhold communicating with the upper terminal of said shank.

2. The combination with a needle-bar, a needle secured therein, and a boss on said needle-bar, of a device consisting of a single piece of metal provided at its lower portion with a foot consisting of two parallel members with upturned terminals arranged in the rear of and entirely to one side of the needle, an upwardly-extending oblique member communicating with said foot, an arm communicating with the upper terminal of said oblique member, a resilient coil communicating with the inner terminal of said arm, another arm communicating with said coil and bearing against the under side of the needle-bar, an eye communicating with the inner terminal of the last-mentioned arm and embracing the upper portion of the needle, a shank communicating with said eye and embracing one side of the lower end of the needle-bar, and a finger-hold communicating with the upper terminal of said shank and embracing said boss.

In testimony whereof I affix my signature in the presence of two witnesses.

CHARLES E. REARDON.

Witnesses:
J. MOORE,
LESLIE E. BAIRD.