M. E. TYNES.

SEWING MACHINE ATTACHMENT.

APPLICATION FILED NOV. 15, 1909.

957,276.

Patented May 10, 1910.

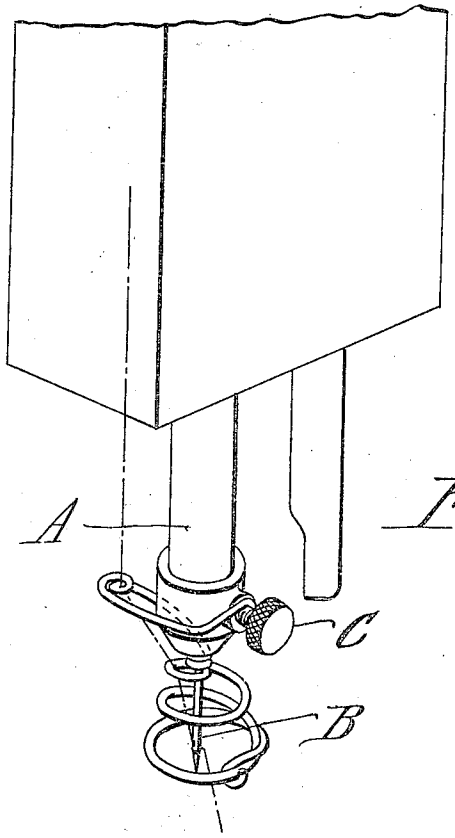

Fig. 1.

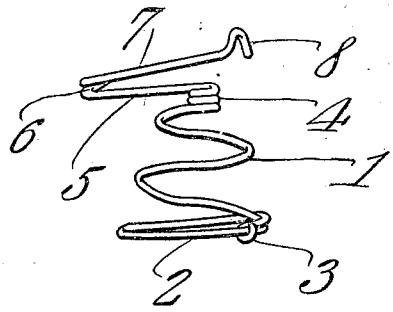

Fig. 2.

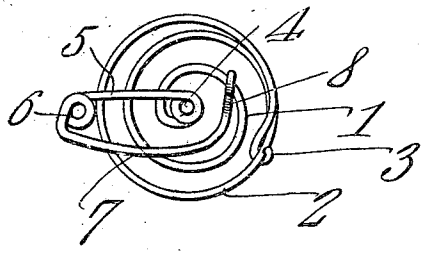

Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

MINOR EUGENE TYNES, OF GLOSTER, MISSISSIPPI.

SEWING-MACHINE ATTACHMENT.

957,276. Specification of Letters Patent. Patented May 10, 1910.

Application filed November 15, 1909. Serial No. 528,172.

To all whom it may concern:

Be it known that I, MINOR E. 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 Sewing-Machine Attachment, of which the following is a specification.

This invention relates to embroidery attachments for sewing machines and one of its objects is to provide a spring presser foot for bearing upon the work at all times during the operation of the needle, said foot being so constructed as to present a broad surface to the fabric being operated upon, the base portion of the attachment being free of any projections which might injure the fabric.

Another object is to provide an attachment of this character which gradually diminishes in size toward its upper end where it is engaged and held in proper position by the needle, there being integral means for engaging the needle bar and the set screw carried thereby for holding the attachment in proper relation to the needle bar and needle under all conditions.

A still further object is to provide an attachment of this character which constitutes a guide for the thread and prevents it from becoming entangled with the attachment while the same is in use.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings, Figure 1 is a perspective view of a portion of a sewing machine and showing the present improvements applied to the needle bar thereof. Fig. 2 is an elevation of the said attachment. Fig. 3 is a plan view of the attachment.

Referring to the figures by characters of reference A designates the needle bar of a sewing machine, the needle B being held therein in the usual manner, as by means of a set screw C.

The attachment constituting the present invention, consists of a spiral ring, 1, the lower whirl of which forms a base 2, the lower terminal of the wire constituting the coil, being bent around said lower whirl as indicated at 3 so as to form a continuous base ring, the extremity of said wire being extended upwardly where it wil not contact with the fabric on which the ring is resting. The whirls of the spring gradually diminish in size toward the upper end of the attachment where they merge into an eye 4 formed of a plurality of coils and the opening in which is slightly greater than the diameter of the needle B. An arm 5 extends from this eye 4 and merges into an eye or coil 6 from which extends a resilient finger 7 terminating in an attaching hook 8 extending substantially perpendicularly thereto.

In applying the device herein described, the needle B is inserted through the eye 4 and the arm 5 and finger 7 are then drawn upwardly to enable the hooked portion 6 to be placed over the set screw C. As the arm and finger are formed in a single length of spring wire, it will be apparent that they will exert a constant upward pull upon the coil 1 and cause the eye 4 to push upwardly against the lower end of the needle bar A.

When a fabric is placed under the needle bar, the base ring 2 of the attachment will bear yieldingly thereon, and as the needle bar moves downwardly so as to force the needle through the fabric, the coil 1 will become compressed. The thread is extended through the eye 4 and thence over the upper whirl of the spiral spring 1 and these parts thus coöperate to prevent the thread from becoming entangled with any parts of the attachment and thus becoming broken.

Importance is attached to the fact that the attachment presents a broad bearing surface to the fabric and that the whirls thereof are spaced at such distances from the needle as to readily bend when subjected to pressure without danger of contacting with and breaking the needle.

The device can be very readily applied and will be found advantageous because of its simplicity, durability, and inexpensiveness.

Various changes can of course be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention.

What is claimed is:—

An attachment for sewing machines consisting of a single length of spring wire bent to form a spiral having its largest whirl at the bottom thereof, the lower end of the wire being secured to the adjoining whirl so as to form a continuous ring constituting the base

of the attachment, the lower terminal of the wire being bent upward above the ring, and a needle-receiving eye formed by the upper or smallest whirl of the spiral, an arm extending from said eye, a horizontally disposed thread-receiving eye at the outer end of the arm, a finger extending from said thread-receiving eye and above and substantially parallel with the arm, and a hook integral with the finger for engaging a projecting portion upon the needle-bar.

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

MINOR EUGENE TYNES.

Witnesses:
T. H. HOFF,
H. R. RATCLIFF.