

E. J. TOOF.

HEMSTITCHING ATTACHMENT FOR SEWING MACHINES.

No. 422,553.

Patented Mar. 4, 1890.

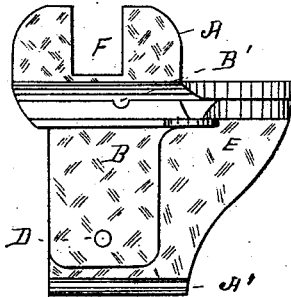


Fig-1-

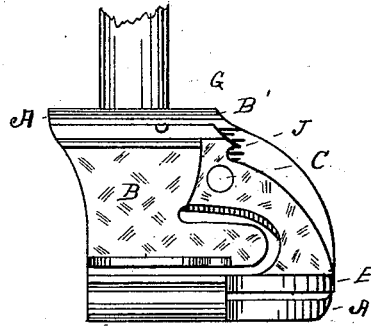


Fig-2-

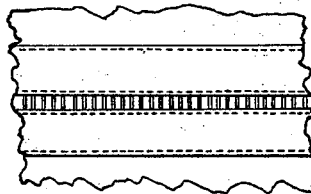


Fig-5-

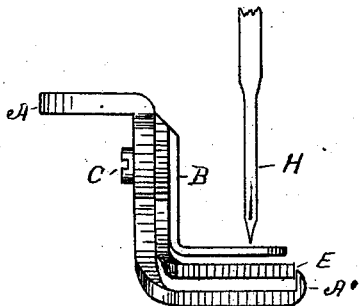


Fig-3-

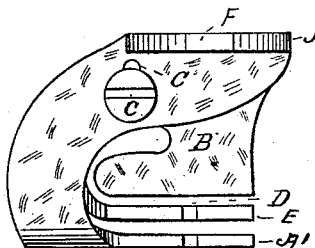


Fig-4-a

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(Model.)

2 Sheets—Sheet 2.

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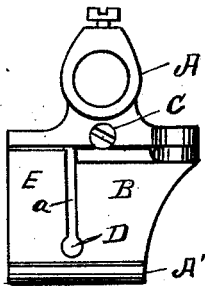


Fig. 6.

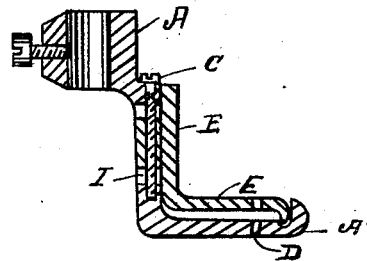


Fig. 7.

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UNITED STATES PATENT OFFICE.

EDWIN J. TOOF, OF NEW HAVEN, CONNECTICUT.

HEMSTITCHING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 422,553, dated March 4, 1890.

Application filed May 7, 1887. Serial No. 237,431. (Model.)

To all whom it may concern:

Be it known that I, EDWIN J. TOOF, a citizen of the United States, and a resident of the city of New Haven, county of New Haven, and State of Connecticut, have invented new and useful Improvements in Hem-Stitchers for Sewing-Machines, of which the following, taken in connection with the drawings, is a specification.

My invention relates to devices for hemstitching used in connection with sewing-machines; and it consists of a guide formed of two principal plates and an auxiliary one, all connected to a shank adapted for detachable connection with the presser-bars of said sewing-machine, as will be hereinafter more fully explained.

The object of the invention is to provide means for varying the width of hemstitching, as may be desired for various purposes pertaining to ornamental sewing and stitching.

Referring to the drawings, Figures 1, 2, 3, and 4, respectively, are enlarged views of my invention, Fig. 1 representing a top view, Fig. 2 is a side view. Fig. 3 is an edge view, and Fig. 4 is a side view of that part opposite the side shown in Fig. 2. Fig. 5 represents a piece of material hemstitched. Figs. 6 and 7 are modifications of my device.

In the drawings, A represents an attaching-shank provided with a slot F for straddling the lower part of the presser-bar, to which it is connected and held in position by screw, nut, or other means.

B represents the auxiliary plate, (more clearly distinguishable in Fig. 3 of the drawings,) which plate is bent at right angles, so as to be conveniently attached to the shank proper, the horizontal part being provided with a hole as a passage-way for the needle. (More clearly shown at D in Fig. 1.) This plate serves as a sort of guide, presser, and stripper to prevent the needle from lifting the material from its proper position while it is being stitched.

C represents an attaching and adjusting screw for securing the two principal plates together.

B is the upper or auxiliary plate, and E constitutes one of the principal or the adjustable plates, which latter plate is angular in form, one portion thereof being arranged to extend

horizontally beneath the stripping-plate B in such a manner as to be adjusted vertically by means of the set-screw C, before described. This plate E, in conjunction with the lower plate A', serves as the means for varying the mesh formed in the operation of what is generally termed "hemstitching." The adjustability of the plates E and A' in conjunction with each other serves to increase or diminish the length of stitch (and thereby the mesh) accordingly as they are adjusted in their relations to each other, as will be hereinafter more fully explained.

The two principal plates E and A' are provided with slits, (more clearly shown at *a a* in Fig. 4 of the drawings,) which slits extend from the needle passage-way in line of the direction that the material is fed, extending to the outer surface, that the stitches may traverse along the slits thereof until freed entirely from the guide.

In the present instance the main shank A, with its extension-plate A', is provided with a slot or an enlarged opening vertically arranged thereon beneath the screw-head C, which admits of the vertical adjustment of plate E, to which the adjusting-screw C is connected by corresponding thread.

Lines to indicate the proper adjustment are shown at J in Fig. 2.

My invention may be constructed in form somewhat different from those described and shown without departing from the spirit of my invention.

Instead of the attaching-shank shown, a socket or any other means adapted to be held detachably upon the presser-bar of a sewing-machine may be used, and the method of adjusting may be changed, as well as the particular formation of parts, all of which will be readily understood by the skilled artisan.

The operation of my invention is as follows: One of the pieces, usually the narrow, passes over the top of the foot part of the device, while the wider one passes beneath the foot part. The needle, passing through the opening therein, forms a stitch, drawing it sufficiently to bring the narrow and wider strips as closely together as the thickness of the guide will permit as adjusted at the time, the threads of the stitching passing along and out of the slit within the foot arranged

for that purpose, thereby uniting the parts in such a manner as to present the appearance indicated in Fig. 5. The stitch for uniting the two parts is varied in length to a greater or less extent by the adjustment of the upper and lower surfaces of the guide, either nearer together or farther apart, so as to keep the two pieces of goods at a desired distance from each other.

10 Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is—

1. A hemstitching-guide consisting of a fixed or stationary plate provided with a foot and an attaching-shank, a secondary plate 15 vertically adjustable upon the former, and an auxiliary plate located above said adjustable plate, arranged substantially as described, and for the purpose set forth.

2. A hem-stitcher consisting of a fixed plate 20 provided with a foot and an attaching-shank, a secondary plate provided with a foot and vertically adjustable in its relation to said fixed plate, a screw for adjusting the position of said secondary plate, a scale, and a strip- 25 ping-plate, substantially as described, and for the purpose set forth.

3. A hem-stitcher consisting of a supporting-plate provided with an attaching-shank and a horizontally-arranged foot, a secondary plate 30 provided with a foot located above and vertically adjustable in its relation to the former, and an adjusting-screw, substantially as described, and for the purpose set forth.

EDWIN J. TOOF.

Witnesses:

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