W. N. MARTIN.

Hemming and Tucking Attachment for Sewing Machines.

No. 113,903. Patented April 18, 1871.

Fig. 1.

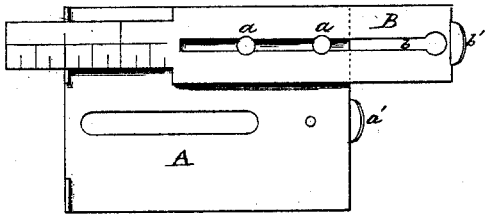


Fig. 2.

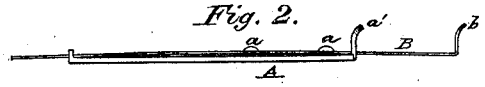


Fig. 3a.

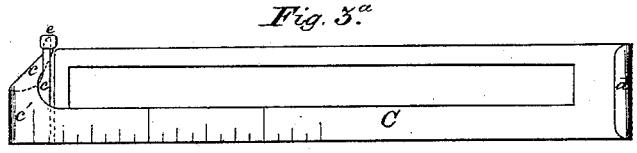


Fig. 4.

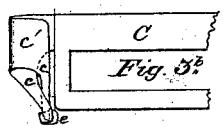


Fig. 3b.

Fig. 5a.

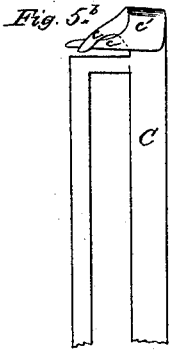


Fig. 6

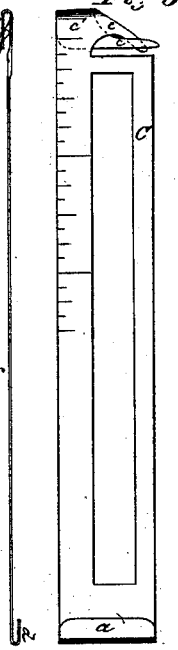
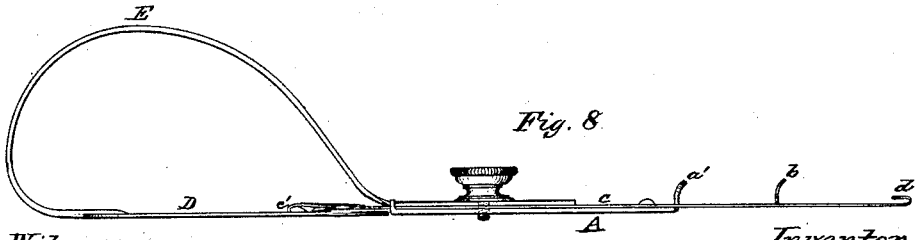


Fig. 7.

Fig. 8



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UNITED STATES PATENT OFFICE.

WILLIAM NELSON MARTIN, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN HEMMING AND TUCKING ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **113,903**, dated April 18, 1871.

To all whom it may concern:

Be it known that I, WILLIAM NELSON MARTIN, of Boston, and State of Massachusetts, have invented a new and useful Improvement in Tuckers and Hemmers for Sewing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 represents a top view of the plate with a graduated spring-slide attached. Fig. 2 represents a side view of same. Fig. 3ª is a top view of my slotted and graduated hemmer, showing a curved lip on the end of one of the fingers, while the opposite end of the slide presents a view of the tuck-holder and guide. Fig. 3ᵇ is an under view of the slotted and graduated hemmer, showing the curved lip on the finger. Fig. 4 is a side view of Fig. 3ª. Fig. 5ª is a similar view to Fig. 3ª, omitting the curved lip on the finger. Fig. 5ᵇ is a similar view to Fig. 3ᵇ, omitting the curved lip. Fig. 6 is a side view of Fig. 5ª. Fig. 7 is a plan or top view of my improved tucker and hemmer, all the parts in position. Fig. 8 is a side view of same.

My invention relates to that class of hemmers and tuckers which is applicable to sewing-machines; and consists in a particular arrangement and combination of parts, as will be hereinafter fully described.

To enable others skilled in the art to use and understand my invention, I will proceed to explain the manner in which I have carried it out.

A is an ordinary metal plate, which may be adapted to any of the sewing-machines in use. On this plate is secured the graduated spring-slide B by means of the headed pins *a a* working in the slot *b*, as shown in Fig. 1. The slide B is slightly curved, as shown in Fig. 2, and this curve affords a sufficient spring, when brought flat upon the surface of the plate A, to secure an easy adjustment of the slide, and it is held in position by the frictional action of the slide on the heads of pins *a a*. By the scale on this slide the width of the tuck or hem is readily determined.

When the guide-plate A is secured in its desired position—that is, at a proper distance from the needle to obtain a tuck or hem of the width required—then the graduated spring-slide B is moved back out of the way until the goods or cloth to be tucked or hemmed has been placed in the machine. This slide is then passed over the cloth and up against the presser-foot, and the cloth is thus held smoothly in position during the operation of sewing.

C is a slotted plate or slide, so shaped and curved at one end as to form two flexible fingers, (see Figs. 5ª and 5ᵇ,) the tip of the lower finger passing over and resting on or above the tip of the upper one. It is this lap of the tips of the two flexible fingers which secures the required lap to the hem. In thus forming and shaping the end *c'* of the slide C before curving it, as shown in Figs. 5ª and 5ᵇ, I not only secure the flexible fingers *c c*, as described, but I secure and utilize the curve formed at *c'* as a guide to determine the amount of lap to be given to the hem, which is an essential feature in any successful hemmer.

On the tip of the upper finger, which underlies the lower one, as shown in Fig. 5ª, may be secured the curved lip *e*, (see Figs. 3ª and 3ᵇ,) which catches the hem as it passes over the tip of the lower finger and compresses it preparatory to its passing under the needle of the machine. This curved lip *e* is not essentially necessary to the successful working of the hemmer; but it adds materially to the ease, accuracy, and beauty of the operation.

When the tucks or hems are required to be of more than ordinary width, the cloth is liable to get out of position and the tuck or hem to get rumpled or uneven. To prevent the possibility of this, the plate D, having the arm *d'*, is secured to the plate A by means of the curved spring E and slotted plate F, as shown in Figs. 7 and 8. By this construction the arm *d'* can be passed into the tuck or hem, to keep it smooth and snugly up to the plate A, while the upper portion of the goods being tucked or hemmed can be easily passed under and through the curved spring E, and thus allow the work to proceed without interruption.

On the end of the hemming-slide C, opposite to the fingers *c c*, I form a graduated scale, similar to the scale on the end of the plate next to the fingers, and I curve or turn down the end *d* of the plate on the reverse side to the fingers. (See Figs. 3ª and 5ª.)

When my invention is to be used for tuck-

ing, the curved end *d* of the slide C is turned to the work, and this curve or hook forms a graduated and adjustable tuck-holder and guide for determining and regulating the distance between the tucks, while the size or width of the tuck is determined by the graduated spring-slide B.

The several parts of my hemmer and tucker are secured together or in position by means of the ordinary thumb-screws and slots, and my invention is readily adapted to any make of sewing-machines.

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

1. The graduated curved spring-slide B, adjustable and held in position by means of the headed pins *a a*, working in the slot *b*, in combination with the gage-plate A, when constructed and operated substantially as and for the purpose set forth.

2. The combination, with the gage-plate A, of the curved and slotted spring-plate D E F and the graduated hemmer-plate with its fingers *c c*, when all are constructed as described, and adjustable on the plate A, as and for the purpose set forth.

3. The hem or tuck holder D, with its arm *d'*, curved spring E, and slotted plate F, in combination with the plate A and the slotted slide C, with the curved hook *d*, constructed, arranged, and operating substantially as and for the purpose described.

4. The curved hook *d*, for holding and guiding a tuck, when formed on the end of the graduated plate C, in combination with the plate A and graduated spring-slide B, when they are constructed and arranged substantially as and for the purpose set forth.

5. The hemmer slide or plate C, when constructed with the flexible fingers at one end, as described, and with the tuck holder and guide *d* at the opposite end, substantially as and for the purpose set forth.

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