D. BARNUM.

Hemmer for Sewing-Machines.

No. 127,732. Patented June 11, 1872.

Fig. 1.

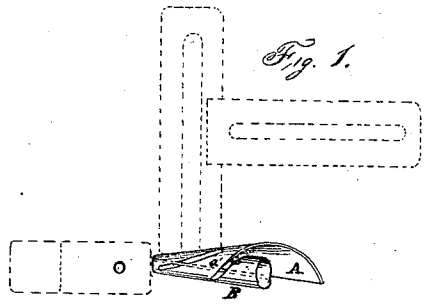


Fig. 2.

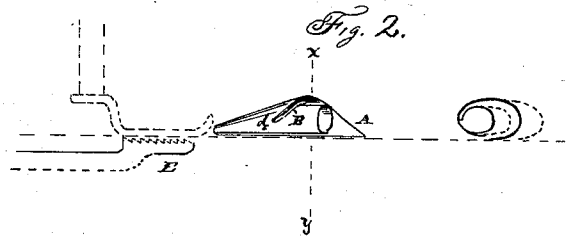
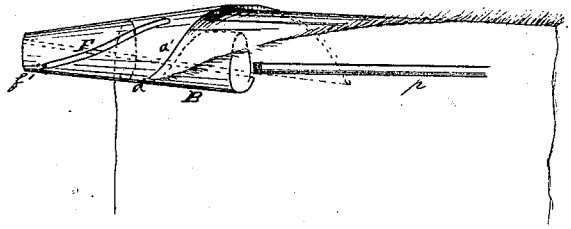


Fig. 3.



Witnesses

Earle H. Smith

S. Ommermann

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UNITED STATES PATENT OFFICE.

DANIEL BARNUM, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN HEMMERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 127,732, dated June 11, 1872.

To all whom it may concern:

Be it known that I, DANIEL BARNUM, of Brooklyn, Kings county, New York, have invented certain Improvements in Hemmers; and the following is a specification thereof:

It is an objection to hemmers as now made that the fabric to be hemmed is entered in the instrument and the hem started with difficulty, and also that raveled or raw edges or goods cut on the "bias" are not held fully under control, so as to be formed into a good hem, and unusual dexterity is required to commence the hem at the entered end of the fabric.

My invention overcomes these difficulties; and to enable others to make and use the same, I will proceed to describe the construction and operation thereof.

Referring to the annexed drawing, Figure 1 shows the hemmer when looking down upon it. Fig. 2 is a side elevation and cross-section. Fig. 3 represents Fig. 1 enlarged.

A is a volute-shaped leaf, within which the goods are entered to be formed into the hem. Its office is to act on the outer surface of the fabric to turn the hem. B is a device for supporting the inner surface of the goods as it enters the hemmer, and preventing the incipient hem from collapsing until its shape is insured. I have ascertained that, in order to turn a hem perfectly, not only are both these parts A and B requisite, but in order to operate correctly they should be of a peculiar shape as to certain of their edges. I therefore make the edge *a'* of the outer leaf, which first receives and acts on the goods, of the shape of a spiral of decreasing pitch; and the forward edge B' of the part B I make of a corresponding shape, thereby forming a diagonal or spiral slit, *c*, for supporting and governing the goods on both surfaces near the edge to be hemmed; and I also unite the two parts A and B at such point as will serve to form a gauge for the edge of the goods, as at *d*. These parts thus made from one piece or more constitute a chief feature in my invention. Another advantage of the gauge *d*, thus formed, is the prevention of an excess of material from entering the hemmer over that required for the hem. On reference to Fig. 3, it will be seen that the goods may be forced into the hemmer laterally from the side (in starting) until the edge reaches the terminus of the slit or gauge *d* aforesaid. When the material is so entered a portion will extend beyond the part B and within the turning-leaf A. Now, to provide for advancing the material further, I have the part B made hollow and open at both ends, and thereby permit the insertion of a suitable "pusher," *p*—being any small instrument, like a brad-awl, for example, with a serrated or chisel edge—and with this the goods may be forced into and through the hemmer, (in readiness to be seized by the feed E of a sewing-machine;) or, I provide for drawing the fabric through by making a slot, F, in the leaf A lengthwise thereof; and through this slot the goods which have been previously entered and carried over to the gauge *d*, as before explained, may be caught with the point of a needle or any sharp instrument introduced through this slit, and thereby be drawn forward and out of the delivering end thereof, with the hem properly formed on the edge ready for stitching. Thus the material of the hem may be carried through the hemmer by positive means, and the commencement of the hem at the very end thereof insured—a result now rarely attained.

For some sorts of work, where a degree of elasticity of the turning surfaces or edges of the hemmer is desirable, I cut the slot F quite through to the delivering end, as indicated by dotted lines in Fig. 3 at *f'*, and thereby making the delivery self-adapting to inequalities and preventing the hemmer from clogging up.

In the operation of this hemmer, the goods, when advanced by the feeding device of a sewing-machine or otherwise, naturally assumes the required shape for producing a hem, while all ravelings or raw edges are gradually inclined inward by the shape of the edge *a'* of the turning-leaf A until the edge draws against the gauge *d*, where the part B, with its edge B' acting conjointly with the spiral edge *a'*, lays all loose threads snugly inside of the line of stitching of the hem entirely out of sight. The very gradual manner in which the goods are acted on and turned by the peculiar spiral-shaped edge of the turning-leaf A, in conjunction with the support afforded by the part B, with its corresponding edge *b'*, and the simultaneous action of the gauge *d*, renders the operation of the hemmers certain.

In varying the construction, to adapt the hemmer for turning wider hems, the part B will of necessity take a more flattened shape, as indicated by the dotted cross-section in Fig. 2.

I claim as my invention and desire to secure by Letters Patent—

1. The scroll, having a curved diagonal slot and gauge, arranged and combined substantially as and for the purposes described.

2. In combination with the scroll slotted as above described, the hollow center piece, as and for the purposes set forth.

Witnesses: D. BARNUM.

E. B. BARNUM,

EARLE H. SMITH.