J. V. D. ELDREDGE.

Hemmers for Sewing-Machines.

No. 142,689. Patented September 9, 1873.

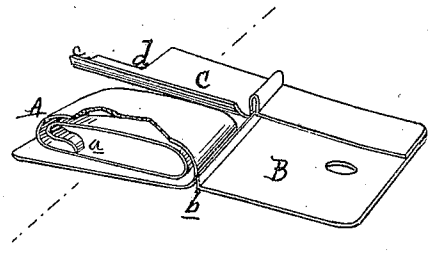

Fig. 1

Fig. 2

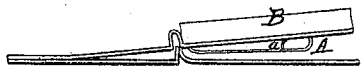

Fig. 3.

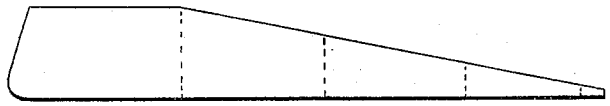

Fig. 4

ATTEST.
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JOHN V. D. ELDREDGE, OF DETROIT, MICHIGAN.

IMPROVEMENT IN HEMMERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **142,689**, dated September 9, 1873; application filed March 8, 1873.

To all whom it may concern:

Be it known that I, JOHN V. D. ELDREDGE, of Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Hemmers; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a perspective view. Fig. 3 is a side elevation. Fig. 2 is a cross-section at *x x;* and Fig. 4 is a plan of the scroll-plate extended, the dotted lines showing the places where it is bent to form the scroll and stop-guide.

Like letters refer to like parts in each figure.

This invention has for its object to provide a hemmer by means of which wide hems may be turned and folded preparatory to stitching, and be fed forward to the needle without allowing the hem to unfold, and without gathering, puckering, or drawing the fabric out of shape. The invention consists in the peculiar conformation of the scroll which turns the hem.

In the drawing, A represents a scroll of two convolutions, formed from the obliquely-cut plate shown in Fig. 4, so bent as to bring the front edges of the convolutions on the same vertical plane. The inner extremity of the scroll-plate, after being carried inward far enough to turn a hem, is turned down against the convolution below it to form a stop-guide, *a*, as seen in Fig. 1. The scroll is soldered to a guide-flange, *b*, on a hemmer-plate, B, which is secured to the cloth-plate of a sewing-machine by a plate-screw. Along the back edge of the plate B is secured a spring press-plate, C, which extends across the back end of the scroll, having a fold in its middle to enable it to straddle the guide-flange *b*. The edge of the press-plate behind the hemmer is curved upward, as at *c*, and the outer back corner of the press-plate is cut away at *d*, where the bottom of the presser-foot would come, the end of the curved toe alone of the presser-foot resting upon the edge of said press-plate, so that as the needle and presser-foot descend in forming a stitch the press-plate will be forced down, holding the fabric under it firmly upon the cloth-plate of the machine, and releasing it as soon as the needle and presser-foot move upward, the spring of the press-plate causing it to follow them up, leaving the fabric free to be moved forward by the feed-piece.

The fabric is introduced into the scroll and carried around until it meets the stop *a*, and is then fed forward to the needle, the stop *a* turning under a narrow fold, which is stitched down at the inner edge of the wide hem, instead of being folded back to the first fold at the outer edge of the hem—saving that amount of cloth—making a hem of two thicknesses of fabric.

The action of the press-plate upon the hem is to compress it while the stitch is being made, after which it serves to keep the fold flattened while moving forward.

In the ordinary wide hemmers of a single convolution, after passing out of the hemmer the upper layer of the fold falls upon the lower one, which, being propelled by the feed, draws obliquely upon the upper one, causing it to wrinkle or pucker. With this hemmer, the two convolutions cause the fold to retain its tubular form until it passes under the press-plate, when it cannot unfold.

The scroll being very narrow at the end where the fold is made in the hem, it offers the least frictional resistance to the passage of the fabric. In hemmers having a scroll of uniform width to the end, the frictional resistance is so great as to cause the fold to be drawn laterally by the feed-piece, which acts upon one edge only of the hem, and thus causes it to crease and pucker.

In narrower hemmers, the scroll may be made from a plate in the form of an isosceles triangle, instead of an oblique-angled or a right-angled triangular plate, thus bringing the guide-stop *a* in the middle of the hemmer-edge, instead of at the front edge, as shown in the drawing. In either case, the mouth of the hemmer is a little wider than the throat, thus facilitating the entrance of the fabric, and the forming of the hem and fold.

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

The scroll A, formed of a single plate, bent as shown and described.

JOHN V. D. ELDREDGE.

Witnesses:
H. F. EBERTS,
H. S. SPRAGUE.