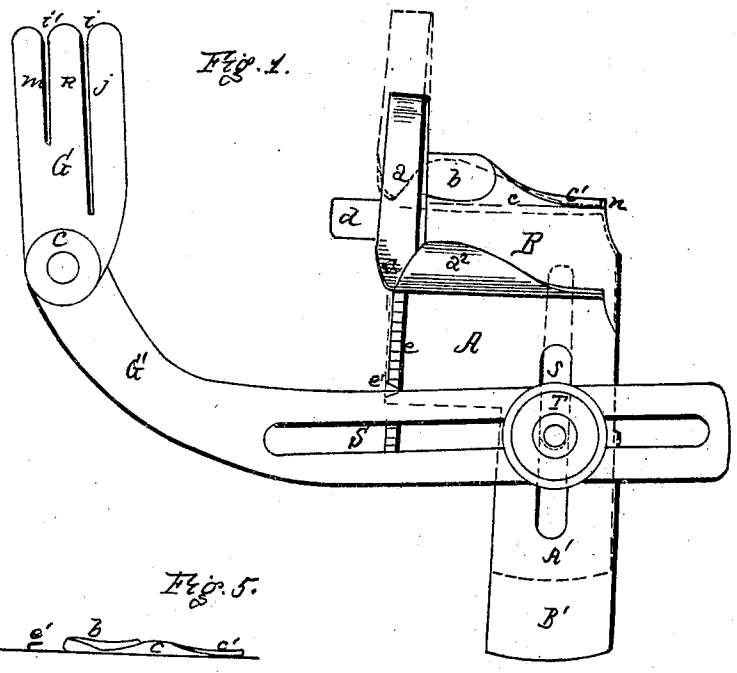
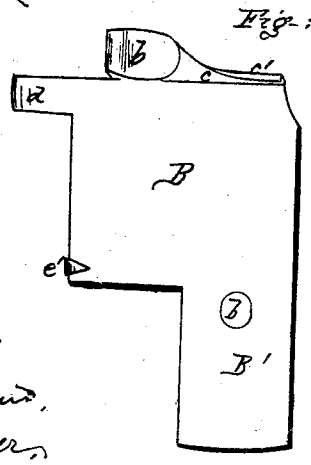
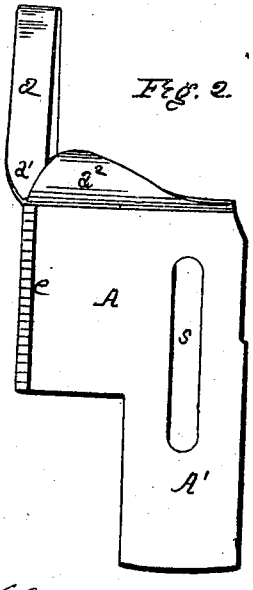
Wilder & Crandell.

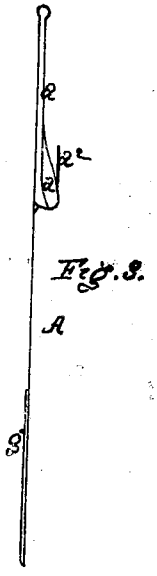
Imp.d Hemmer for Sewing Machines.

No. 84454 Patented Nov. 24, 1868









Witnesses
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ELIHU WILDER AND JOHN CRANDELL, OF CHICOPEE, MASSACHUSETTS.

Letters Patent No. 84,454, *dated November* 24, 1868.

IMPROVEMENT IN HEMMER FOR SEWING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, ELIHU WILDER and JOHN CRANDELL, both of Chicopee, in the county of Hampden, and Commonwealth of Massachusetts, have invented a new and improved Hemmer and Guide for Sewing-Machines; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a plan view of said hemmer and guide, as attached to the work-plate of a sewing-machine.

Figure 2 is a plan view of the upper of the two plates which compose the adjustable hemmer.

Figure 3 is a side elevation of the same.

Figure 4 is a plan view of the lower of said plates.

Figure 5 is an end elevation of the same.

Our invention consists in a hemming-attachment for sewing-machines, constructed in two parts, an upper plate sliding on a lower one, so that a part of the curved surfaces which turn and form the hem are formed upon one plate, and part upon the other, whereby a hem of any desired width, within the capacity of the hemmer, can be readily made.

The hemmer thus constructed, may be called an extension-hemmer, as distinguished from the single-plate hemmers with extension-guides, as hitherto constructed.

Our invention further consists in the application to a hemmer of an adjustable guide, which is fastened to the work-plate of the sewing-machine by the same binding-screw which fastens the hemmer to the plate.

The guide operates to direct the cloth accurately into the hemmer, and thereby to form a hem of uniform width.

The difficulty of accurately guiding the edge of the cloth by hand into the hemmer is entirely obviated by the use of this automatic guiding-device, and all irregularity in the width of the hem is prevented.

The construction of our invention is as follows:

The lower plate B, figs. 4 and 5, is constructed of thin sheet-metal, and is provided with a small index, *e'*, a hook, *d*, for holding the hemmer to place against the draught of the cloth passing through it, and an opening, *h*, through which the binding-screw passes into the plate of the sewing-machine.

In forming a hem, the cloth is usually folded twice, the main fold determining the width of the hem, while the edge is also folded into the hem to conceal its irregularity. This narrow fold is made by the channel *c*, formed by the bent lip *c'*.

The curved surface formed by bending over the part *b* guides the fold into the channel *c*.

The upper plate A is formed in like manner of sheet-metal, and provided with a slot, *s*, through which the binding-screw passes, and a graduated scale, *e*, which moves beneath the index *e'*.

The scale may be graduated to suit the styles of work for which the hemmer is principally designed, or in fractional parts of an inch, with a corresponding numbering.

The bent strap or loop *a* is extended beyond the plate far enough to accommodate the widest fold which the hemmer will form.

The edge of the cloth will pass into the hemmer through the loop *a*, and the flaring portion a^1 of the loop will tend to keep the cloth closely to the shoulder a^2, which latter operates to turn the main fold of the hem.

The length of the slot *s* in the plate A is proportioned to the length of the loop *a*, but both may be made of length sufficient to allow the formation of any desired width of hem.

A flange, *g*, is turned down on each side of the part A' of the plate A, which flanges embrace the edges of the part B' of the plate B, and act as guides to direct the movement of the upper plate upon the lower one.

The index *e* also acts to prevent the sidewise motion of the upper plate in one direction.

The operation of the hemmer, when it is adjusted at any width, is substantially the same as that of any operative hemmer wherein the width of hem is not adjustable.

The relative position of the two parts of the hemmer, for forming a narrow hem, is shown by the red lines in fig. 1, while the position for turning a much wider hem is shown by the full lines in the same figure.

The guide is formed of the curved and slotted strip of thin metal G' and slotted part G, which is pivoted to G' by the flat-headed rivet C.

Two narrow slots, *i* and *i'*, are cut in G, which is so set with reference to the hemmer that the line of the slots *i i'* will incline away from the line of the sides of the hemmer.

By such an inclination of the slots, the edge of the cloth which is inserted in one or the other of the slots, will be drawn into the slot as it passes along into the hemmer and the edge will constantly keep to the end of the slot.

This draught into the slot may be increased or diminished by turning the part G so that the line of the slots makes a greater or less angle with the line of the straight side of the hemmer, or, in other words, at a greater or less angle with the line of the stitching which is going on.

The elongated slot S permits the guide to be set at different distances from the hemmer, while it can be turned about the binding-screw as a centre, so as always to bring the inner end of the slot *i* or *i'* in the proper position to guide the edge of the cloth properly into the hemmer.

To be used advantageously, the inner end of the

slot *i*, (or *i'*, if the latter is used,) will be set as far below the line of the channel beneath the lip *c'* as is the width of the main fold to be made, increased by the width of the small fold, if any, by which the edge is turned in out of sight.

It will be seen that the guide can be adjusted to direct the cloth accurately into the hemmer, whatever be the width of hem to be formed, and that it may be also applied to other hemmers than those of the form specified.

We sometimes find it desirable to invert the position of the part G from that shown in the drawings.

We do not claim, as our invention, the formation of the curved surfaces upon the plates A and B, which co-operate to form a hem, when considered apart from the adjustable plates, as we are aware that many hemmers, which are not adjustable as to the width of the fold, are provided with curved surfaces of nearly similar conformation.

Having described our invention,

What we claim as new therein, and desire to secure by Letters Patent, is—

1. A hemming-attachment for sewing-machines, composed of the stationary plate B and the slotted sliding plate A, having the curved surfaces *b* and *c'*, for forming the folds, substantially as described, and the whole constituting an adjustable hemmer, as set forth.

2. The movable plate A of an adjustable hemmer, having thereon lips *b c'* and the elongated loop *a*, constructed and applied substantially as set forth.

3. The slotted and jointed guide G G', in combination with a hemming-attachment for sewing-machines, and constructed substantially as set forth.

In witness whereof, we have hereunto set our hands, this 28th day of April, A. D. 1868.

ELIHU WILDER.
JOHN CRANDELL.

Witnesses:
J. P. BUCKLAND.
E. F. TOMMER.