C. MARSH.

Binder Guide for Sewing Machines.

No. 49,036. Patented July 25, 1865.

Fig. 2.

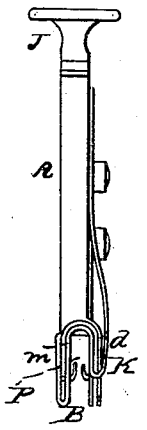
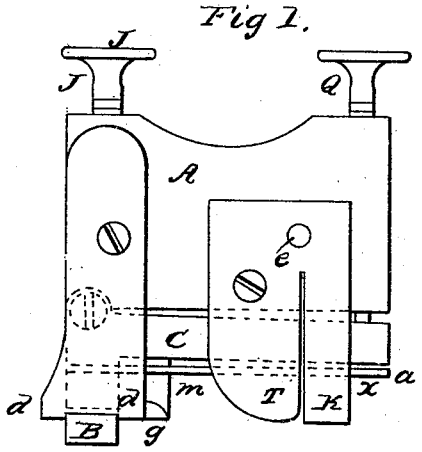


Fig 1.



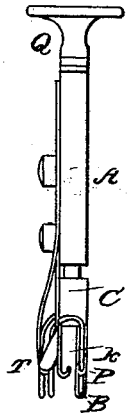


Fig. 5.

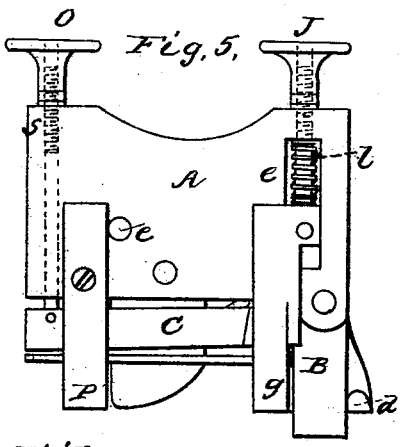
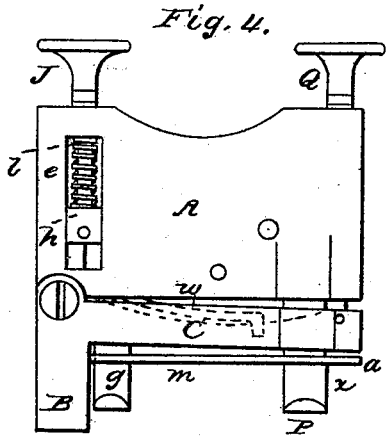


Fig. 4.



Witnesses:

Charles H. Leonard

W. L. Somers

Inventor

Clark Marsh

by his Attorney C. S. Renwick.

UNITED STATES PATENT OFFICE.

CLARK MARSH, OF BRIDGEPORT, CONN., ASSIGNOR TO THE WHEELER & WILSON MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN BINDER-GUIDES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **49,036**, dated July 25, 1865.

To all whom it may concern:

Be it known that I, CLARK MARSH, of Bridgeport, in the county of Fairfield and State of Connecticut, haved invented a new and useful Binder-Guide for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 represents a top view of a binder-guide embodying my invention. Fig. 2 represents a view of one end of the same, and Fig. 3 represents a view of the other end of the same. Fig. 4 represents a top view of the same with some of the guiding-lips removed, and Fig. 5 represents a view of the apparatus turned upside down.

The object of the invention is to fold and guide binding to the rim or edge of a hat-body or other article to which binding is to be sewed in a sewing-machine in such manner that a tubular passage is formed in the binding when it is sewed to the article, for the insertion of a spring or other device.

To this end my invention consists of the combination of the stock of the binder-guide with a tongue and with a guide to direct the binding over the said tongue in such manner that the tongue is supported in the fold of the binding between it and the line of the seam, which secures the binding to the article to which it is to be sewed, so that the space occupied during the sewing by the tongue forms a tubular passage in the sewed article.

The second part of the invention consists of the combination of the first part thereof with an adjusting-screw or its equivalent, to vary the relative positions of the tongue and lips of the guide, so as to admit binding of various breadths into the apparatus.

The third part of the invention consists of the combination of the first part thereof with an adjusting-screw or its equivalent, to vary the relative positions of the tongue and guide-lips in the vicinity of the point where the sewing is effected, so as to adapt the apparatus to guiding binding of various breadths to the needle of the sewing-machine to which the apparatus is applied.

The fourth part of the invention consists of the combination of the first part thereof with a lip to flatten the folded binding upon the rim of the hat-body in advance of the needle of the sewing-machine.

The accompanying drawings represent a binder-guide embodying all parts of my invention and of the proper dimensions for use upon a Wheeler & Wilson sewing-machine. The stock A of this binder-guide consists of a flat plate of metal, which is perforated with a hole, *e*, to admit a clamp-screw, by which it can be secured to the table-plate of the sewing-machine with which it is to be used. The tongue *m* is secured at its butt to a guide, B, of a U form, the straight portions of the guide being of sufficient length to admit the widest binding which the apparatus is intended to operate upon. This guide is situated at that part of the apparatus at which the binding enters, so that the tongue projects onward past the position of the needle of the sewing-machine. As the apparatus in the present example is adjustable to different breadths of binding, the guide B is secured to a movable bar, C, which is connected by a hinge with the stock of the apparatus, so that the point *a* of the tongue may be moved farther from or nearer to the stock.

In order to adapt the machine to the guiding of binding of various widths to the proper position over the edge of the hat-body or other articles, the guide B is provided with a pair of movable lips, *d g*, the one above and the other below the tongue *m*, so that the one overlaps the upper edge of the binding and the other its lower edge. The stocks of these lips are secured to a block, *h*, Fig. 4, which is arranged to slide crosswise to the length of the tongue in a slot formed in the stock A, and an adjusting-screw, *l*, and spring *e* are arranged to operate upon the said block. The shank of the screw is pivoted to the block *h*, and its end is passed through a hole in the stock, and is fitted with a regulating-nut, J, so that by turning the nut in one direction the block *h* is drawn toward the nut and the lips *d g* are moved toward the fold of the guide B to adapt their positions to narrower binding, while by turning the nut J in the other direction the spring *e* is permitted to move the lips from the fold of the guide to admit binding of greater breadth.

In order to guide the binding in the vicinity

of the needle, a pair of lips, *k p*, are provided to overlap its edges, their butts being secured to the stock A. The extremity of the tongue and the adjacent extremity of the bar C, to which it is secured, are embraced by these lips *k p*, and as the bar is hinged at its opposite extremity to the stock, it, with the tongue, may be turned on the hinge to move the tongue nearer to or farther from the lips *k p*, so that the edges of the binding of various widths may be properly acted upon by the lips. The positions of the bar C and tongue *m* relatively to the lips *k p* are controlled by an adjusting-screw, *s*, which is passed through a hole in the stock and is fitted with a regulating-nut, Q. The turning of this nut in one direction draws the bar and tongue from the lips *k p*, and the turning of it in the other direction permits the bar and tongue to be moved toward the lips by a spring, *w*. (Shown in dotted lines in Fig. 4.) The apparatus is provided with an inclined lip, T, to flatten the fold of the binding before it passes to the needle, which strikes down in the space *x*.

When the apparatus is to be used the nuts J Q are turned as required to adjust the parts to recive the binding, which is inserted through the guide B, between the butt of the tongue *m* and the face of the tongue-bar C. The binding is conducted under the lip T and through the lips *k p*. The edge of the hat or other article to be bound is applied in the fold of the binding at the position of the needle, and the work is then ready for sewing. As the work is sewed it passes out of the binder-guide and off the point of the tongue *m*, and as the tongue sustains the binding during the sewing, so that it cannot be drawn closely onto the edge of the article, a tubular space is left in the fold of the binding as the bound article passes off from the point of the tongue.

If the binder-guide is to be used to apply binding of but one width, the second and third parts of the invention may be dispensed with, the guide B may be made of the proper size to admit the required binding, and the lips *k p*, in the vicinity of the needle, may be fixed to the stock of the apparatus.

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

1. The combination, in a binder-guide, of the following instrumentalities, viz: the stock, tongue, and guide, substantially as set forth.

2. The combination, in a binder-guide, of the following instrumentalities, viz: the stock, tongue, guide, and adjusting-screw, to vary the relative positions of the tongue and lips of the guide to admit binding of various widths, substantially as set forth.

3. The combination, in a binder-guide, of the following instrumentalities, viz: the stock, tongue, guide, and adjusting-screw, to vary the relative positions of the tongue and guiding-lips in the vicinity of the point where the sewing is effected, substantially as set forth.

4. The combination, in a binder-guide, of the following instrumentalities, viz: the stock, tongue, guide, and lip to flatten the folded binding, substantially as set forth.

In witness whereof I have hereunto set my hand this 24th day of May, A. D. 1865.

CLARK MARSH.

Witnesses:
WILLIAM K. SEELEY,
F. HURD.