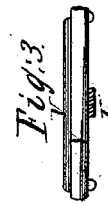
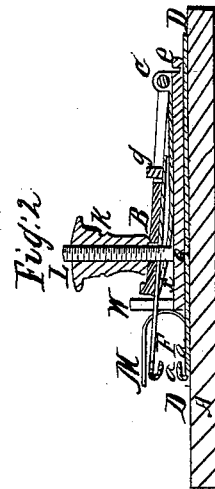
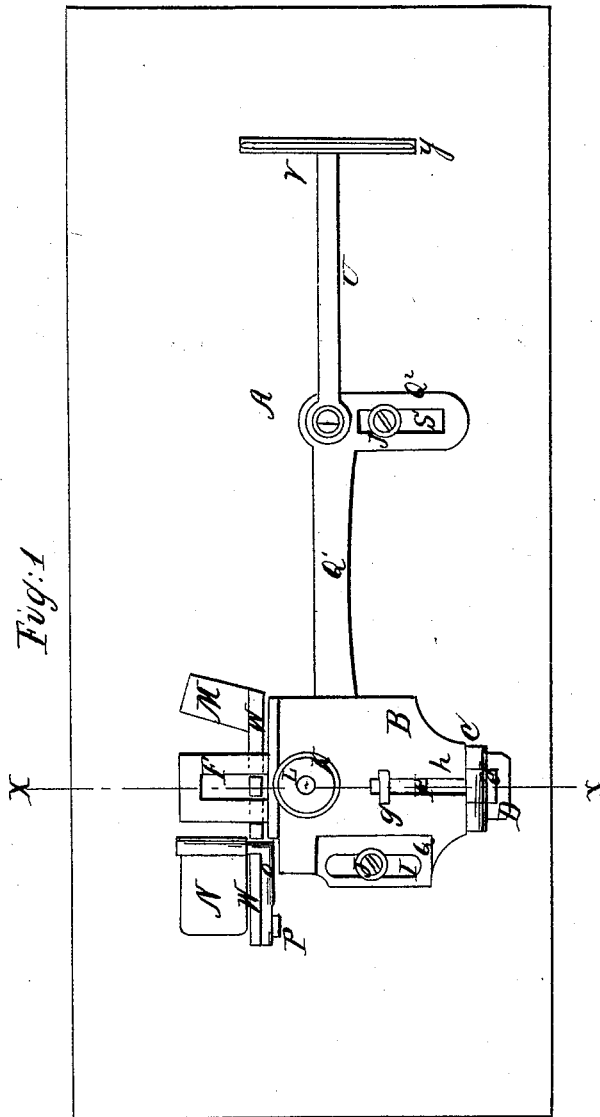


T. Rogers.

Binder for Sewing-Machines.

N^o 53,243.

Patented Mar. 13, 1866.



Witnesses
W. B. Livingston
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Inventor
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UNITED STATES PATENT OFFICE.

THOMAS ROGERS, OF LIVERPOOL, ENGLAND.

IMPROVEMENT IN BINDER-GUIDES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 53,243, dated March 13, 1866.

To all whom it may concern:

Be it known that I, THOMAS ROGERS, of Liverpool, England, have invented a new and useful Improvement in Binders for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of an apparatus made according to my invention. Fig. 2 is a cross-section taken on the line *x* of Fig. 1. Fig. 3 is a detailed view of the tension-bar V.

The invention consists in an improved binding and cord guide for use with sewing-machines, by means whereof I am enabled to sew any width of braid or binding on any thickness of goods. It excels in point of speed and convenience of adjustment, and it applies the braid or cord to the binder in a state of proper tension.

A designates the cloth-bed of a sewing-machine, on which the binding apparatus is secured by set-screws J J, that pass through slots I and S made in the bottom plate, Q, and in an extension, Q², thereof. Part of the plate Q is concealed in Fig. 1 beneath the top plate, B, which is hinged to it at C. The front side of that part of plate Q which is beneath plate B has a ledge, W, which serves as a gage and guide for the cloth or other material to be sewed. The free end of plate B moves just within the ledge, and is held up from plate Q by a flat spring, *x*.

L is a pin fixed in plate Q and rising up through plate B. It has a screw-thread cut on it to receive a thumb-screw, K, whose lower end bears on the top of plate B. By means of this thumb-screw the plate B is forced downward against the force of the spring *x*. The under plate, Q, extends an arm, Q', toward the right, (observing Fig. 1,) the end of such arm having a right-angled extension, Q², in which is the slot S, that contains one of the adjusting-screws J. On the end of arm Q' is pivoted an arm, U, that is capable of swinging horizontally over the cloth-bed around the end of said arm Q'. The connection of arm U to the arm Q' is by a screw, which can be tightened so as to produce friction on the joint and prevent the arm U from swinging too freely. The

winging arm U carries at its free end a bar, V, fixed across it at right angles, like the cross-bar of the letter T. This bar is for the purpose of guiding and making tension on the braid or cord, and is notched at each end to enable one to secure the ends of an elastic cord, Y, which is stretched lengthwise over said bar, and whose office is to produce tension on the cord or braid as it passes to the binder. Tension may be effected on the braid or cord by means of a metallic spring fixed on said bar V, instead of by an elastic cord.

M is a U-shaped guide fixed to the outer face of the ledge W at its right-hand end, and is designed to receive the edge of the material to be sewed, and to receive the braid and fold it and bend it around the edge of the said material.

F and D are adjustable guides for guiding the edges of the braid and causing them to lay even on each side of the cloth. Their outer ends are bent inward into the form of flat hooks *a a*, in which the edges of the braid run, the cloth being moved along between the opposing sides of the hooks, which are to be adjusted, by means hereinafter described, to such a distance apart as to allow the cloth to go easily between them. The lower one, D, of these guides is fitted beneath the bottom plate, Q, and extends behind it, as seen in the drawings. The part which extends behind it carries a dog or projection, *e*, which serves as a stop to limit the movement of the guide toward the left, and also as a finger-piece, by which one can move the guide toward the right. The bottom of the plate Q has projections on its front and rear ends which compel the guide D to move in a straight line. The plate Q binds the guide D closely enough to produce just enough friction to hold the guide steady against accidental misplacement while the work is going on. The upper guide, F, is placed between spring *x* and the under side of plate B. Its inner end has a T-shaped guide, *g*, which moves in a slot, *h*, cut in plate B, the cross-bar of the guide riding on the top of the plate on each side of the slot. By pushing the guide *g* in either direction the guide F is moved in or out, as above explained, of the guide D. The guides D and F are, of course, to project the same distance from the guiding-ridge W, and the distance to which

they are to be brought out is determined by the width of the folded braid. The guide F has a longitudinal slot cut in its center, and the flat sides of the guide are received in vertical slots made in the ledge W extending down as far as the plate Q, so that the said guide, which is always held up against the under side of the plate B by the spring *x*, will be free to move vertically with said plate B when it is operated by the thumb-screw K.

N is a flat plate, which vibrates up and down toward and away from the cloth-bed on the outer end of a right-angled arm, O, whose inner end is pivoted on the inner face of ledge W. The part on which the plate N is hinged rests in a slot made across the ledge W, so that when the material sewed passes along beneath the said vibrating plate it not only is capable of swinging up on the arm O to let the cloth pass beneath it, but if the cloth or material is thicker than the distance between the cloth-bed A and the bottom of the slot on which the arm O rests the said arm itself is free to swing up on its pivot P. The plate N will come beneath the presser-foot of the sewing-machine to which the apparatus is applied.

The spring *x* is fastened by its inner end to

the bottom plate, Q, and the screw-pin L passes through a hole in it, and so assists in keeping it in place.

I claim as new and desire to secure by Letters Patent—

1. In binders for sewing-machines, hinging the upper plate, B, to the lower plate, Q, and operating the upper plate, B, to bring it near to or away from the lower plate by means of a spring and a thumb-screw and screw-threaded pin, for the purpose of adjusting the distance apart of the guides D F, substantially as shown.

2. In combination with the above the tension-bar V V, constructed and operating in the manner and for the purpose explained.

3. In combination with a binder constructed as herein described, the guides D and F, attached to and arranged to slide back and forth for adjustment in separate plates B and Q, as described.

The above specification of my invention signed by me this 4th day of September, 1865.

THOMAS ROGERS.

Witnesses:

D. LISTER,
EDWD. MURPHY.