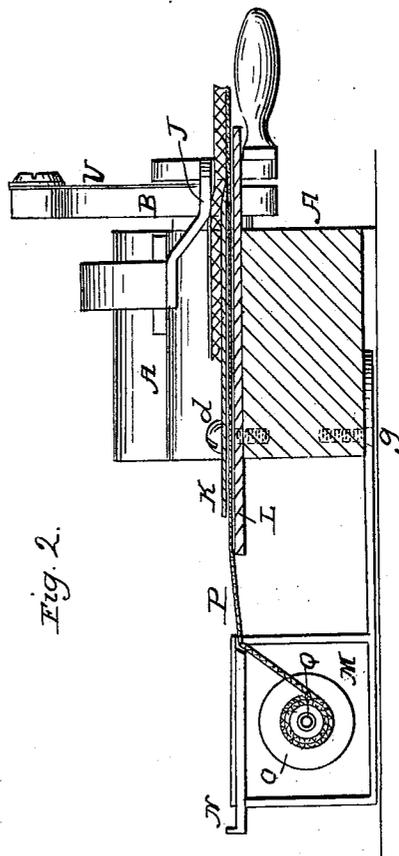
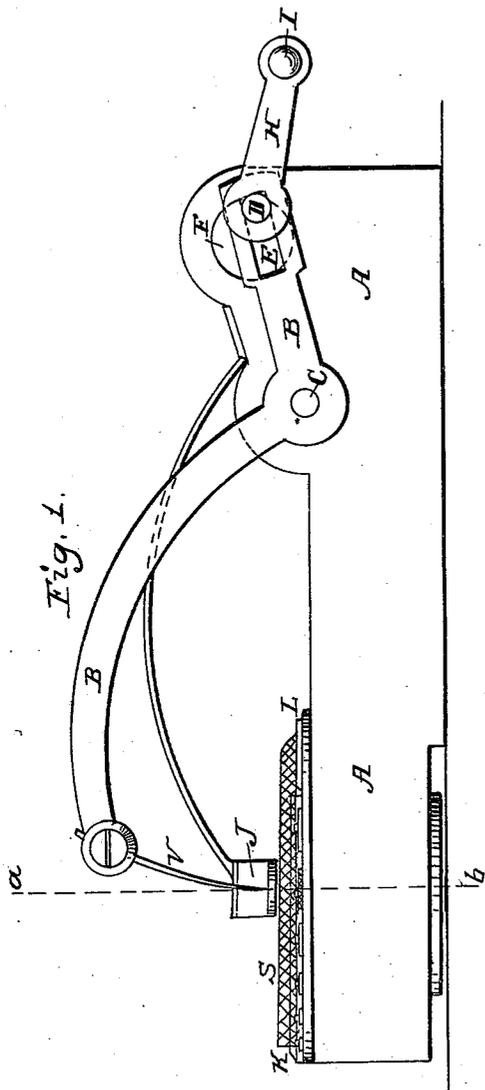


T. J. W. ROBERTSON.

Sewing Machine.

No. 26,205.

Patented Nov. 22, 1859.



Witnesses:
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 26,205, dated November 22, 1859.

To all whom it may concern:

Be it known that I, T. J. W. ROBERTSON, of the city, county, and State of New York, have invented a new and useful Improvement in Sewing-Machines; and I do hereby declare that the following is an exact, full, and clear description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of the principal parts of a sewing-machine with my improvements attached. Fig. 2 is a sectional end view through the dotted line *a b*, Fig. 1. Fig. 3 is a plan. Fig. 4 represents the work done by my improved machine.

Similar letters refer to corresponding parts in the several figures.

The nature of this invention consists, first, in combining a braiding-guide with a sewing-machine; second, in the peculiar form of said guide to enable the operator to keep the ornamental stitching always in the center of the braid in turning corners, circles, &c., and in a device for preventing the kinking of the braid as it is drawn out of the case.

To enable others skilled in the art to which this pertains to make and use my invention, I will proceed to describe its construction and operation.

A A is the frame of the machine, which may be made in any convenient form, carrying a needle-holder, B, working on and attached to the rock-shaft C, and deriving a vibrating motion from a pin, D, working in a slot, E, in the holder or arm B. Pin D is attached to the face-plate F on the end of main shaft G.

H is a crank carrying the handle I, by turning which the necessary motion is given to the needle.

J is the foot or presser for stripping the cloth from the needle. It is attached to the frame A by screws *c c*.

K is the guide-plate, attached to the table L of the machine by a screw, *d*. The form of this guide-plate is best shown in Fig. 3. The dotted lines there shown represent two cavities formed on the under side of it. These cavities begin at the small end of the plate, and branch out at the other end into six small grooves or guides, *e e e*, of various widths, to accommodate different widths of braid. The guide-plate K is made long enough to nearly or quite cover the needle-hole in the table. To

enable the needle to pass through, a notch, *f*, is cut in the plate in the center of each groove or guide *e*.

M is the adjustable case, which is simply a box with a top, N, sliding in grooves in the sides, and having the bottom extended so as to form a means of attaching the case to the frame A by a screw, *g*. Inside the case there is a spool, O, upon which is wound the braid or grimp P, to be used in the machine. This spool runs on a pin, Q, having a milled head, R, to enable the operator to take out or change the spool.

S represents the cloth, and T the ornamental stitching, which fastens the braid or grimp P to it.

The method of using the improvement may be described as follows: Having first filled the spool O with braid, insert it in its place, fastening it there with the pin Q. Then, having hold of the end of the braid, push the top N of the case close enough to the braid to allow it to pass freely out without letting it pass through when twisted. This braid is generally put up for market in pieces or hanks, and sometimes, from this method of putting it together or from imperfections in its manufacture, the braid is twisted, doubled together, or roughened so that it would not lie even, to be sewed on the material to be ornamented; but by closing the top of the case, as described, the braid is opened out smoothly and even for the machine to operate on, with all the kinks taken out. Having adjusted the top N in the manner shown, the next thing is to pass the braid or grimp P (being careful not to twist it) through the guide *e* nearest the width of the braid or grimp then being used, then adjust the guide-plate K so that the center of the guide having the braid in it shall be in a line with the path of the needle U, and fasten it there by the screw *d*. The case M, being attached to the table A by the screw *g*, can be turned in any position, so as to allow the braid P to enter either of the cavities and pass on to the needle in a straight line. This is very necessary, as, were it otherwise, the braid would often twist or turn up at the sides after it had left the case, so as to make imperfect work. Having placed the fabric to be ornamented under the foot J, the machine is set in operation, and as the cloth is fed along by any of the usual methods of feeding, the braid (be-

ing fastened to the cloth by the stitching) is drawn through the guide *e* and off the spool *O* with it; or the feeding device may be so arranged as to act partly on the cloth and partly on the braid, or on the braid altogether. The guides *e e* are made to hold the braid in position until it is sewed on the cloth. This is accomplished by extending the guides *e e* past the center of the needle-hole and cutting away the top of the guide, that the needle may pass through without hindrance. If the guide-plate *K* were made so short that the needle would pass without this cutting away, the ornamental stitching would not always be in the center of the braid in turning circles, corners, &c.; but by making the guides in the manner shown, the stitching is always in the center. The top of the guide-plate *K* (see Fig. 2) is beveled off at the end nearest the needle, to avoid the sudden change in the position of the cloth. This may also be effected by cutting away part of the top of the table *L*, so as to sink the guide-plate *K* nearly level with the remainder of the table.

Instead of the movable guide-plate *K*, an adjustable guide may be made in the table *L*; or the guide may be arranged, in connection with the foot, so as to lay the braid on the upper surface of the cloth.

This improvement may be attached to any sewing-machine; but I prefer to use it in connection with a two-thread chain-stitch machine, as the heavy cord-like stitch which can be made by these machines adds much to the beauty of the work.

The ornamental work done by machines having this improvement attached is unequalled in beauty or durability. It is especially useful in ornamenting children's clothing. The braid being sewed on so strong, it is not so likely to be torn off as braid-work done by hand, which is merely run on. It is also very useful for ornamenting ladies' under-clothing, dresses, collars, sleeves, slippers, and all other work where braiding is applicable. Very handsome window-curtains may also be made with machines of this kind. The kind of work known as *aplique* may also be very handsomely done by my

machines. This work is done by sewing on the fabric to be ornamented a piece of material of different texture or color in the form of a leaf or any other design, and then cutting away all the ornamenting material that is outside of the design, thus forming an ornament of a different color or texture to the main body of the work.

I do not mean to limit myself to the precise form of the devices herein shown, as they may be varied in many ways without altering the nature of my invention; neither do I mean to claim, broadly, a guide to lay on a braid, for I am aware that a device called a "binding-guide" has long been used; but this is only applicable to sewing binding on the edge of a piece of cloth or other material, while my device can be used on any part of the fabric, producing a totally different effect, one being simple binding and the other handsome embroidery.

I am also aware that there are devices in use for laying a cord between two thicknesses of material and confining the cord in its place by stitching the material together on both sides of the cord, forming a kind of raised or embossed work. This I do not claim; but

What I do claim, and desire to secure by Letters Patent, is—

1. The employment, in combination with the needle of a sewing-machine, of a plate, *K*, constructed and operating substantially as herein shown and described, for the purpose of laying and holding braid, gimp, or other material upon the surface of the fabric, as set forth.

2. The arrangement of the guides *e e e* to extend past the center and on each side of the needle-hole, as and for the purpose herein set forth.

3. The employment, in combination with the braid-holder *M*, of the adjustable slide *N*, for the purpose of flattening and opening the braid and preventing its kinking, as herein shown and described.

T. J. W. ROBERTSON.

Witnesses:

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