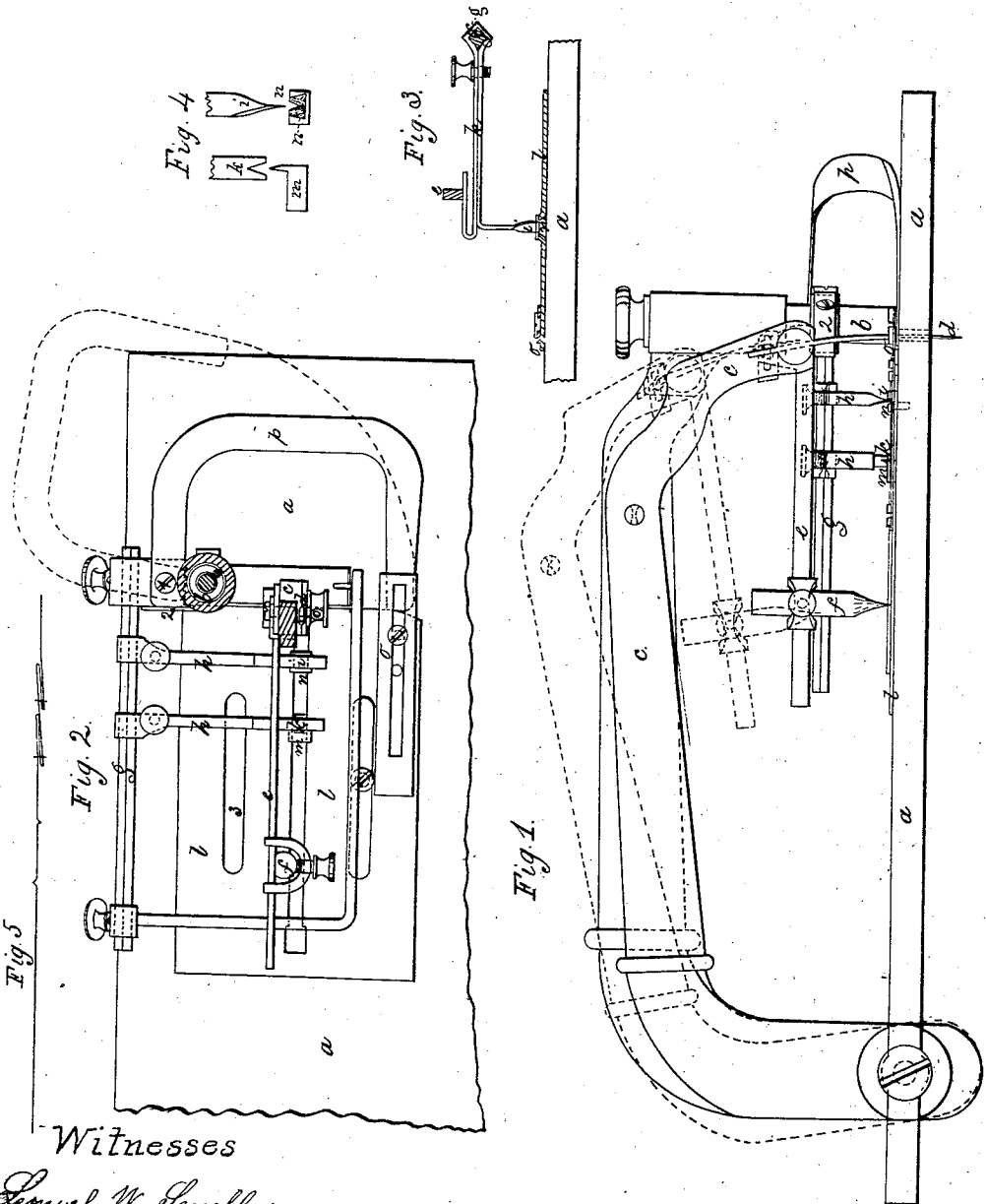


H. W. Fuller.
Sewing Machine Guide.
N^o 28633 *Patented Jun. 5, 1860.*



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY W. FULLER, OF BROOKLYN, NEW YORK, ASSIGNOR TO HIMSELF
AND ANTHONY W. GOODELL.

IMPROVEMENT IN MECHANISM FOR MARKING CLOTH IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 28,633, dated June 5, 1860.

To all whom it may concern:

Be it known that I, HENRY W. FULLER, of Brooklyn, in the county of Kings and State of New York, have invented, made, and applied to use certain new and useful improvements in means for marking cloth in sewing-machines, which I denominate the "Universal Marker for Plaiting and Tucking;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a side elevation, showing my apparatus, also the needle-arm and pressure-foot of a sewing-machine; and Fig. 2 is a plan of the same with the arms removed to show the other parts.

Similar marks of reference denote the same parts.

The nature of my said invention consists in a vibrating marking instrument or instruments that move in unison with the needle, so as to crease or mark the cloth at a given distance or distances from the needle, and the same not pressing on the cloth, except while the needle is in the cloth, prevents such marking-instrument obstructing the cloth in its movement by the feed, and hence said mark can be made at any distance from the sewing and the cloth remain smooth. By the use of a point vibrating in unison with the needle and acting on the upper surface of the cloth, in connection with a notch or an elastic surface or pad below the cloth, a crease will be made whose ridge is below the cloth, and by the use of a point below the cloth and a vibrating notch or elastic pad above a crease will be formed whose ridge is on the upper side of the cloth, and by the use of one, two, or more of these up or down markers, or one up and down marker, the crease or ridge can be made exactly at the desired distance from the line of sewing, and either upward or downward, according to the way in which the cloth is to be folded over for the after operations; and on performing another line of sewing the crease or creases are made for the next fold. This device is especially useful in all kinds of tucking, and in plaiting shirt-bosoms and similar work. By the use of a vibrating pencil or

chalk a line of marks is made by which a second line of stitching is guided, the same being useful in quilting or performing any straight or curved parallel lines of stitching. It will be evident that if the marking-points are at right angles to the feed from the needle the marking must be a given distance from the sewing and parallel thereto, regardless of the curved or zigzag form in which the sewing is performed.

In the drawings, *a* represents the bed of any sewing-machine. *b* is the pressure-foot, and *c* the needle bar or arm, all of which may be of any form; and the sewing is to be performed by the needle *d*, in connection with a shuttle-looper or any device.

e is an arm extending from the needle arm or bar and vibrating with the same.

f is a pencil, chalk, or point adjusted on said arm *e*, so that in its vibrations the point shall press upon the cloth, and consequently make a mark thereon at the distance from and parallel to the line of sewing being performed at which the second row of sewing is to be made. This is specially adapted to marking for quilting or stitching.

g is a bar that may be attached to the pressure-foot, so as to be raised up with it, or may be sustained in any other convenient manner.

h h are adjustable marking-arms that extend from the bar *g*, and are provided one with a marking-point, *i*, and the other with a marking-notch, *k*. The arms *h* are formed as springs, so that the parts *i* and *k* are raised from the surface of the cloth, except when acted on by the arm *e*, and said arms *h* are also fitted with springs, taking the arm *e*, so as to yield in case of inequality in the thickness of cloth, and not interfere with the full stroke of the needle-bar.

l is a plate screwed onto the bed *a* and carrying the adjustable point *m* and leather *n* or its equivalent. The point *m* is formed somewhat similar to the point *i*, both being thin, rounded, and blunt chisel forms, so as not to injure or catch in the cloth, and this point *m* may be fitted to slide in a groove for adjusting the same to the desired distance from the needle; or several of these points may be formed or attached permanently on a plate at short distances apart. The leather *n* is also represented as adjustable, and it forms a crease, into

which the point *i* acts; and said leather may be set into a small metal holder, or it may be formed as a strip of sufficient length to comprise the distance to which the part *i* may be adjusted. The operation of this part is illustrated in Figs. 4 and 5, where the marking parts *i n* and *k m* are shown in larger size, and the fold or crease produced in the cloth is also represented. The points *i n* produce a downward crease and the parts *k m* an upward crease when the cloth is exposed to the action of these parts by passing between the same; and in order to give motion to these markers the bar or arm *e* strikes on the spring part of the arms *h h*, (see Fig. 3,) pressing the surfaces together and crimping or creasing the cloth.

The drawings represent my apparatus as adapted for stitching three-ply shirt-bosoms, as seen in Fig. 5, in which instance the plait folded under the cloth runs against the end of the plate *l* as a guide, and the adjustable spring-finger *o*, pressing on the plait, keeps it folded down tightly, ready to pass under the pressure-foot *b*.

p is a swinging guide attached by the screw 1 to the arm carrying the bar *g*, and acted on by the spring 2 to keep the end of the guide within the plait and the back of the plait against the end of the plait *l*, so that the stitching will be upon the edge of the plait with unerring certainty. For tucking, the markers should extend on either side of the needle-arm, and for this purpose the bar *g* can be fitted in any convenient manner; but where a holder on arm to the pressure-foot is used in the manner shown the hole into which said bar sets may pass through the same and be provided with a clamping-screw, so that said bar *g* can be inserted from the other side, and the plate *l* also stand on the other side of the needle, a second slot, 3, being provided for this purpose. The arm *e* also requires to be changed to the other side, in order to take the marking-points *i n*.

It will be evident that the marking notch or point *i* or *k*, or both, might be placed directly on the arm *e* and provided with a suitable spring between the bar and point. The man-

ner of attaching the parts to the sewing-machine must also be varied, as circumstances may require, for different characters of sewing-machines, or for different kinds of work to be performed; and the vibrating motion may be given to the markers by any other device besides the needle-bar.

I do not claim a gage for spacing off the width of folds, tucks, or plaits, either in a sewing-machine or applied as a separate apparatus for said purpose; but all the previous devices with which I am acquainted acted simply to perforate the goods or form a mark at a given point, to which the goods had to be folded by hand, whereas my apparatus makes a complete crease in the cloth, so that the parts of the cloth, when laid over each other, fold down at these creases without requiring creasing by hand as a separate and prerequisite operation.

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

1. Forming one, two, or more creases in cloth by means of markers on opposite sides of the cloth, one of which is connected with the bed of the machine and the other operates simultaneously with vibrations of the needle in a sewing-machine, whereby the crease or creases are formed in the cloth itself parallel to the line of sewing in such a manner that the cloth is ready for doubling over at said creases for the next line of sewing, as set forth.

2. Marking a line on the surface of cloth or other material being sewed in a machine by means of a pencil or similar article that is pressed upon the surface of said cloth at the time the needle perforates the same and is raised therefrom when the feed takes place, so as to produce a series of marks parallel to and simultaneous with the line of sewing, as set forth.

In witness whereof I have hereunto set my signature this 25th day of February, 1860.

HENRY W. FULLER.

Witnesses:

LEMUEL W. SERRELL,
THOS. GEO. HAROLD.