

United States Patent Office.

CHARLES H. GARDNER, OF ROCHESTER, NEW YORK.

Letters Patent No. 80,721, dated August 4, 1868.

IMPROVEMENT IN TUCK-FOLDER 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 I, CHARLES H. GARDNER, of the city of Rochester, in the State of New York, have invented a new and useful Tucker; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 is a top view, in which are represented two tucks of the fabric in blue lines.

Figure 2 is a side elevation.

Figure 3 is a transverse section in the direction of the red lines in figs. 1, 2, and 4.

Figure 4 is an inverted view of the presser-foot plate.

Like letters of reference indicate corresponding parts.

The nature of this invention will be understood from the drawings and specifications.

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

I make my tucker in two parts, A and B, one of which, A, is attached to the table of a sewing-machine by a clamping-screw at *h*.

The part A consists of a plate raised on the outer end, shown at *c*, the inner edge of which has a channel, *e*, in half-round conical shape, and on the side next to the needle *G*, figs. 1 and 2. The upper edge *d* of the channel is made thin, shown in fig. 1 in dotted lines, and fig. 2 in full lines. On *c* is a movable guide-plate, *H'*, which regulates the width of the tuck, and it is sustained in any desired position between the ribs *v* by a set screw, *U*, passing through the slot *o*.

The piece B is composed of a slotted horizontal plate, *H*, having a flaring raised lip, *u*, a part, *L*, serving as a presser, and which is attached to the shank of the presser-bar, and a spring-lip, *a*, having an open-eyed slot.

An adjustable guiding-gauge, *f*, works on the under side of the part B, and is adjusted by means of the thumb-nut and screw *e'*. The guiding-gauge *f* is also kept in position by projections, that work in grooves, *K*, on the under side, and an overlapping-lip, *y*, shown in fig. 1.

Between the slot *q* and the needle *G*, the plate is cut away, as shown in fig. 4, and is covered by the arch *u*, shown in each figure. I also attach a thin spring-plate, *a*, fig. 4, to the outer end of the plate *H*, in the extreme outer corner of which is formed an open eyelet, *e'*, through which the needle passes. On the outer edge of the front end of the guiding-gauge *f*, I form a projecting lip, *y*, figs. 2 and 4, (in dotted lines fig. 1,) to sustain the edge of the fabric.

The object of this invention is to make tucks in dress-materials, and sew them at the time they are being folded.

The operation of this invention is as follows:

In commencing the first tuck, it may be necessary to make a line by creasing the material, or otherwise, the guiding-gauge *f* being set the required distance from the place the first tuck is to be formed. The operator is aided in holding the material straight by keeping the line parallel with the guiding-gauge. As the fabric is being fed into the machine, the conical-shaped channel causes it to roll over in the form of a wave, and, being folded around the edge of the adjustable guide *H'*, and under it, and around the outer end of the plate *H*, it passes between the spring-plate *a* and presser-foot *L* in the form of a tuck, and is stitched at the same time, the opening in the eyelet allowing the formed stitch to pass out as the work is fed along.

The parts A and B are so arranged, when together on the machine, that the inner edge of plate *H* enters the channel, *e*, of the part A, fig. 2, leaving a space between it and the channel *e* to allow the fabric to pass.

The spring *a* keeps the material in a perfect fold after it passes through the conical-shaped channel, until after the needle has made the stitch, and the eyelet being open, as shown in the drawings, allows the formed stitch to pass out.

This arrangement is very desirable, as, without some device for sustaining the material until after the needle has passed through it, the tucks will not be even.

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

1. The piece B, constructed as described, and consisting of the parts *L* & *H*, spring *a*, with open eyelet *e*, all constructed as and for the purposes set forth.
2. In combination with the above, the part A, consisting of the raised block *c* and adjustable plate *H'*, all constructed as described, and operating together for the purpose set forth.

C. H. GARDNER.

Witnesses:

JAS. LORENZO GAGE,
WM. S. LOUGHBOROUGH.