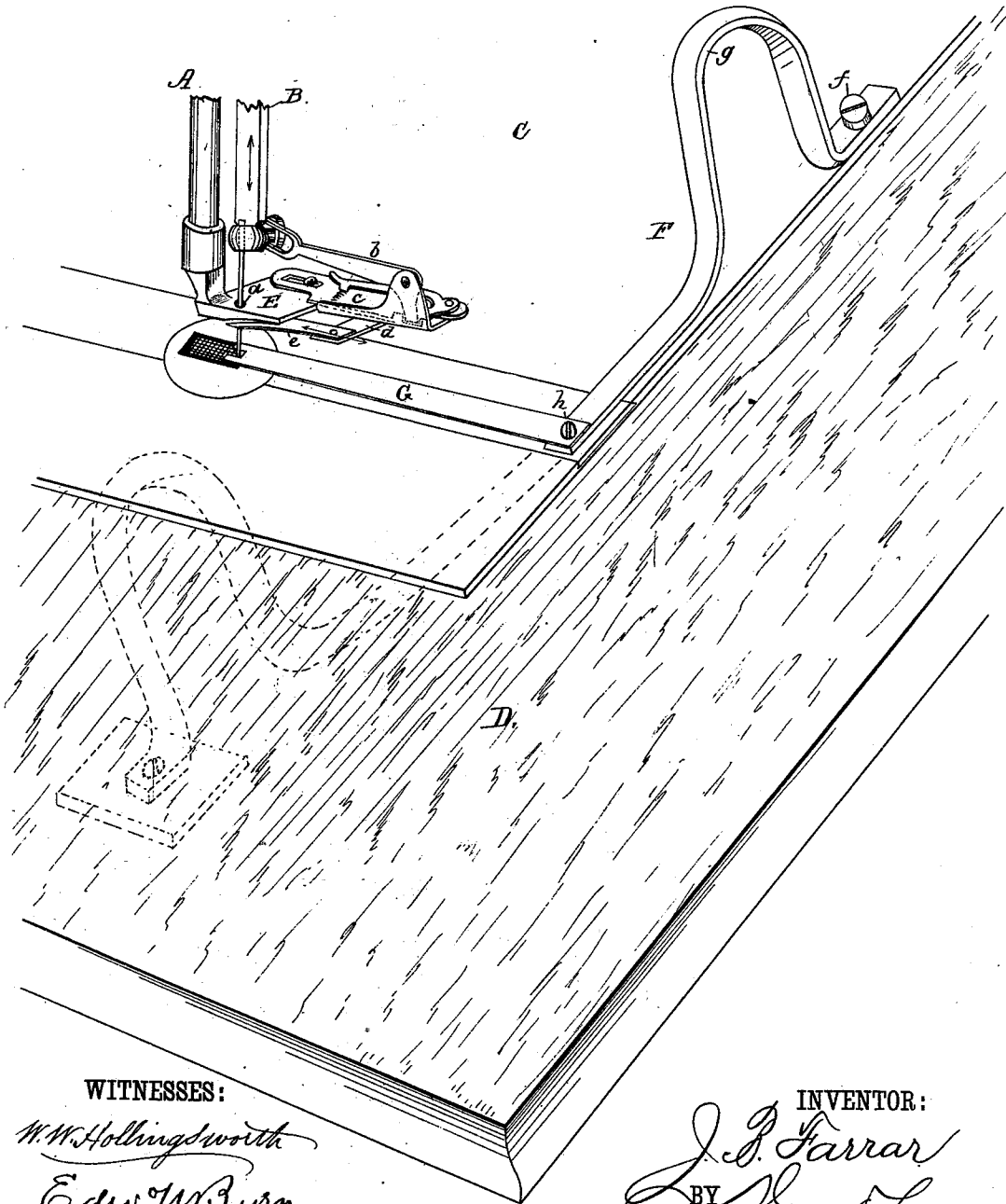


(No Model.)

J. B. FARRAR.
Gatherer and Ruffler for Sewing Machines.

No. 235,220.

Patented Dec. 7, 1880.



WITNESSES:

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JAMES B. FARRAR, OF WILMINGTON, NORTH CAROLINA.

GATHERER AND RUFFLER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 235,220, dated December 7, 1880.

Application filed July 23, 1880. (No model.)

To all whom it may concern:

Be it known that I, JAMES B. FARRAR, of Wilmington, in the county of New Hanover and State of North Carolina, have invented a new and Improved Gatherer and Ruffler 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 drawing, forming part of this specification, in which the figure is a perspective view showing my invention.

My invention relates to an improvement in gathering and ruffling attachments for sewing-machines designed to gather a piece of fabric either at its edges or throughout its entire surface, and to gather either a single thickness of fabric or to gather or shirr a piece of fabric on a groundwork, or to gather one piece of fabric to another, and at the same time attach a ribbon, tape, or braid at the seam, all in a single operation. To this end my invention consists in a detachable arm having at one end a screw adapted to fasten it to the work-plate of any machine, and having at the other end a detachable blade set at right angles and arranged in line with the feed, which device is adapted to co-operate with a reciprocating gathering-blade working between this stationary blade and a presser-foot above, as hereinafter more fully described.

Before proceeding to describe my invention I would state that I do not claim that part of the device illustrated in the drawing for actuating the reciprocating gathering-blade, as it is not new or original with me except in its combination with my additional device. I would have it understood; moreover, that my invention is not limited in its combination to the particular means shown for reciprocating the gathering-blade, as it has a wider range of use.

Referring to the drawing, A represents the presser-bar; B, the needle-bar; C, the work-plate, and D the table of any ordinary sewing-machine.

Attached to the presser-bar, and occupying the position of the ordinary presser-foot, is a flat horizontal frame, E, having an orifice, *a*, through which the needle passes. This frame, which is virtually the presser-foot, is shown elevated to better expose the underlying parts.

An elbow-lever, *b*, is fulcrumed to an upturned ear on this frame, and is slotted at one end and connected by a screw-pin with the needle-bar, so that as the latter reciprocates the vertical and shorter arm of the lever oscillates in a nearly-horizontal plane. This end of the lever *b* connects with a horizontal slide, *c*, of the frame E, which slide carries a right-angular arm, *d*, which bears the gathering-blade *e*, working just beneath that part of the frame E in front of the needle-orifice. This particular means for reciprocating the gathering-blade is a part of what is known as the "Johnston Ruffler," and forms a convenient mechanism for co-operating with my attachment, which I will now describe.

F is a metal arm, which is adapted to be fastened to the work-plate by a screw, *f*, and close to this point of attachment rises with an upward bend and descends again, forming a loop, *g*, and then extends horizontally along the edge of the work-plate to the line of the needle. At the end of this arm is securely fastened by a screw, *h*, a thin, long blade, G, whose end is branched, so as to extend a short distance on each side of the needle. The object of this blade G is to prevent the gathering-blade (which is immediately above it) from coming in contact with the sewing-machine feed, and to hold the gathers as they are pushed forward by the gathering-blade and prevent them from being pulled back by the said gathering-blade on the back movement. In the Johnston ruffler means are devised for this same purpose; but as they are in the nature of an attachment to the presser-foot frame E it is obvious that the depth of the ruffling or gathering is limited to a very short distance from the edge of the fabric.

My invention is characterized by the following different ranges of use:

First, it allows the material to be ruffled, gathered, or shirred over the whole surface of the fabric, the size of which fabric and extent of the shirring being only limited by the space under the arm of the machine. Thus, when it is simply desired to gather a single thickness of material, the latter passes under the arm of the machine and over the bend *g* of the arm F and over the blade G, which latter rests between the fabric and the sewing-ma-

chine feed while the gathering-blade is making the gathers.

Secondly, it permits a surface of fabric to be ruffled, gathered, or shirred consecutively over the whole surface, and at the same time and with the same stitch joins this shirred facing to a groundwork of some other material. For this purpose the material which forms the groundwork has one edge rolled up and inserted through the loop *g*, while the other edge passes beneath the blade *G* and is acted upon by the feed. The fabric to be shirred onto this groundwork is then passed over the top of bend *g* and over the blade *G*, as in the first case. The fabric at the bottom then has the normal feed of the machine, while the upper piece is fed much faster by reason of the gathers. This latter arrangement permits of great range of economical ornamentation, as two broad pieces may be thus connected to produce a very ornamental effect, especially where the top piece is of some light fabric; or tapes, ribbons, or narrow strips may be gathered or shirred upon and attached to any part of a garment; or two whole pieces may be attached together by shirring, and braids or ornamental bindings attached by the same line of stitches to cover the plaits or folds.

Thirdly, I have found that by simply removing the screw which holds arm *F* and screw *h* and reversing the position of the arm and plate, as shown in dotted lines, the goods may be shirred with alternately-reversed diagonal gathers. Thus, by passing the goods

through with the attachment in its normal position, I find that by simply pulling the goods so as to strain the feed the plaits or folds will assume a diagonal position, and then by reversing the attachment, as shown in dotted lines, and commencing at the opposite end of the goods and again straining the goods, the diagonal folds may be thrown to a reverse inclination, which gives a very ornamental effect. With respect to the function of the bend *g* in the arm, I would state that it not only gives place to the rolled-up fabric, but forms a bearing for the top fabric which straightens out wrinkles or folds and allows the goods to be fed evenly under the presser-foot.

Having thus described my invention, what I claim as new is—

The detachable bent arm *F*, having at one end a screw *f*, to adapt it to be attached to the work-plate of a sewing-machine, and having at the other end a detachable blade, *G*, and screw *h*, for fastening said blade, which is arranged in the relation to the line of feed as described, and is adapted to co-operate with a presser-foot above and an interposed reciprocating gathering-blade, substantially as described, and for the purpose set forth.

The above specification of my invention signed by me this 22d day of July, 1880.

JAMES B. FARRAR.

Witnesses:

EDWD. W. BYEN,

CHAS. A. PETTIT.