(No Model.) 2 Sheets—Sheet 1

J. M. STUKES.

QUILTING ATTACHMENT FOR SEWING MACHINES.

No. 534,020. Patented Feb. 12, 1895.

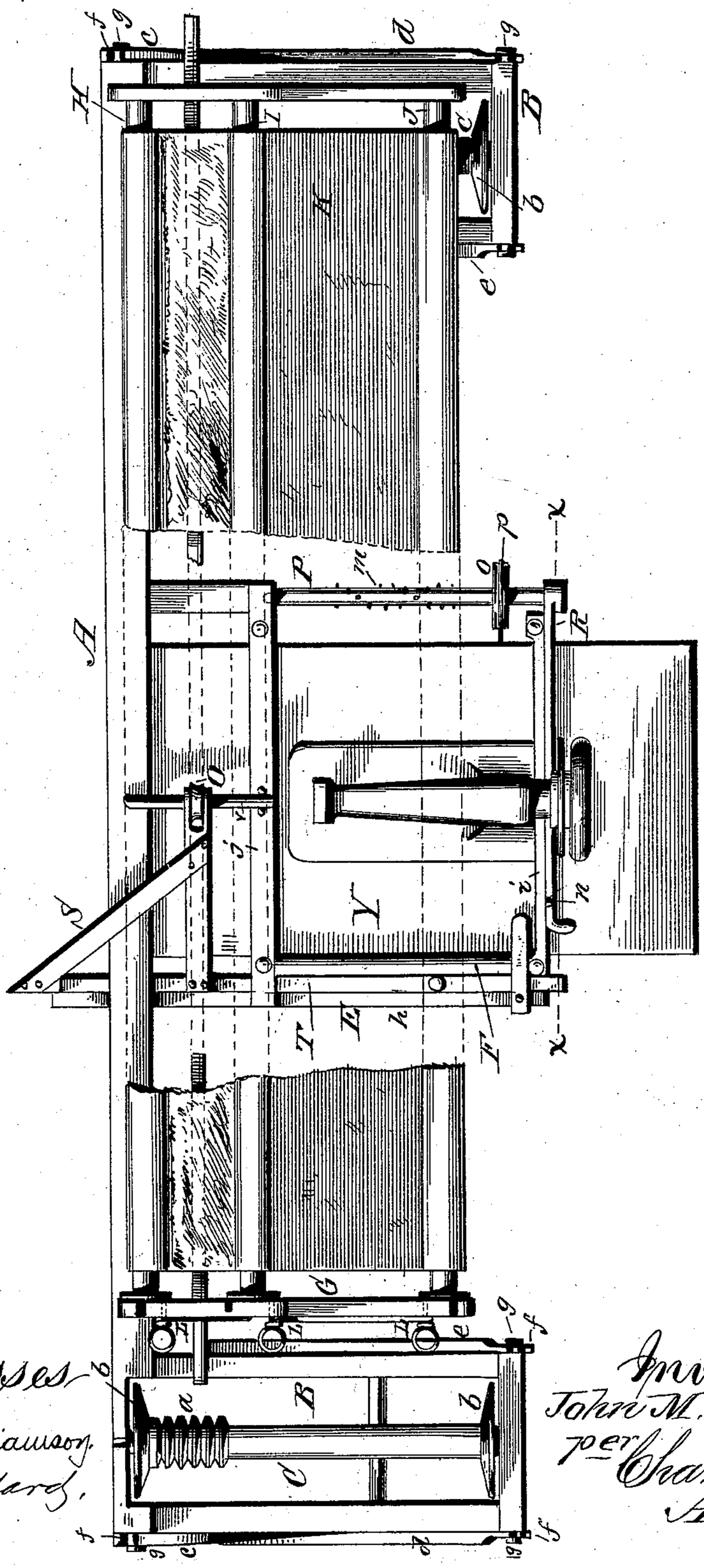

Fig. 1.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

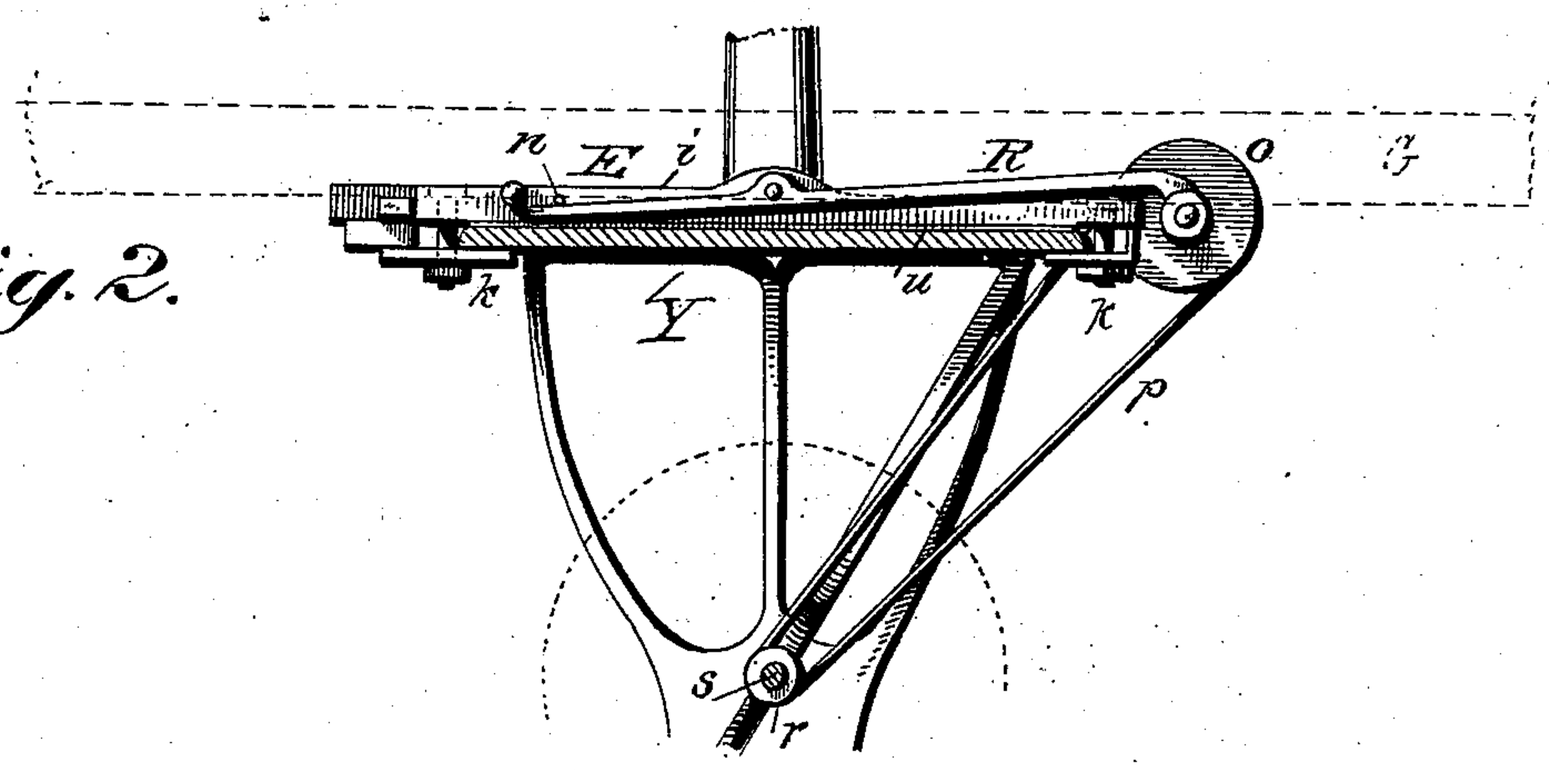


Fig. 3.

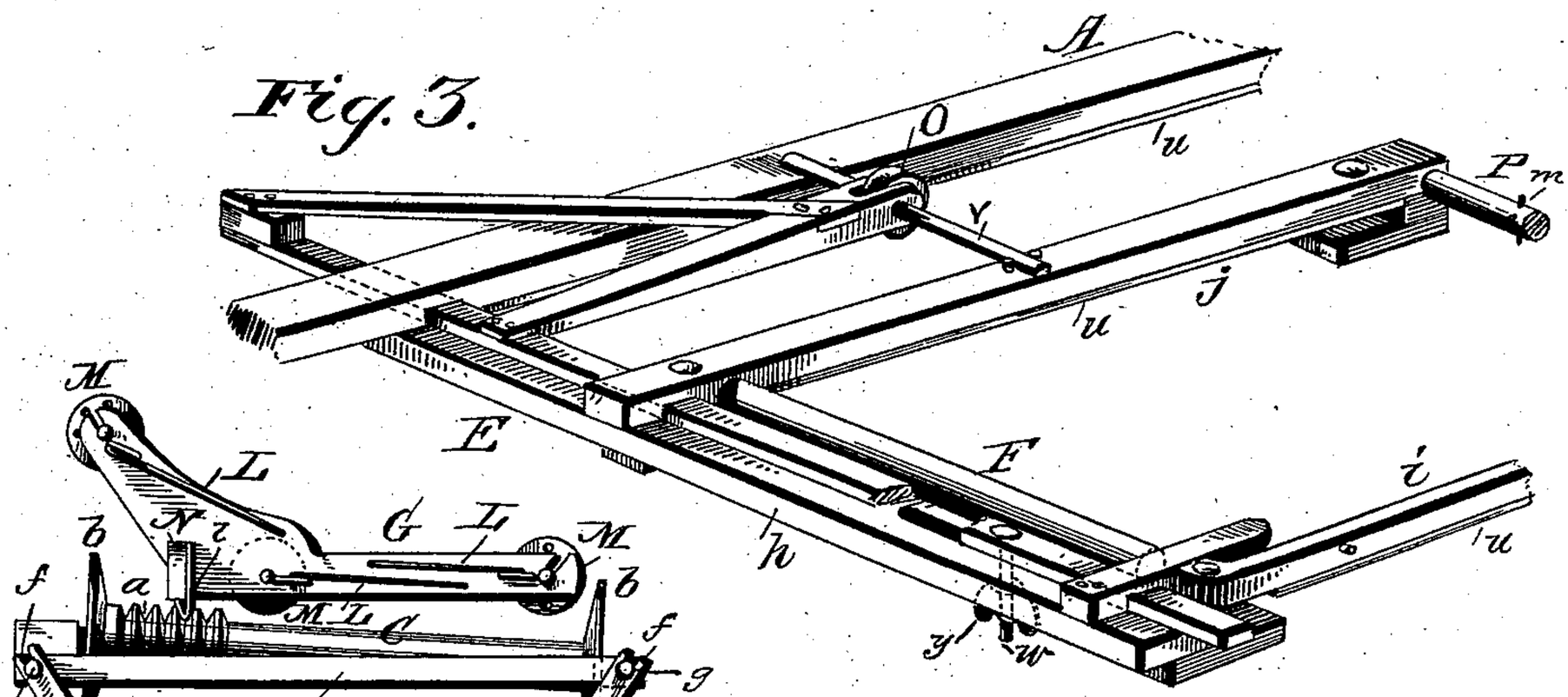


Fig. 4.

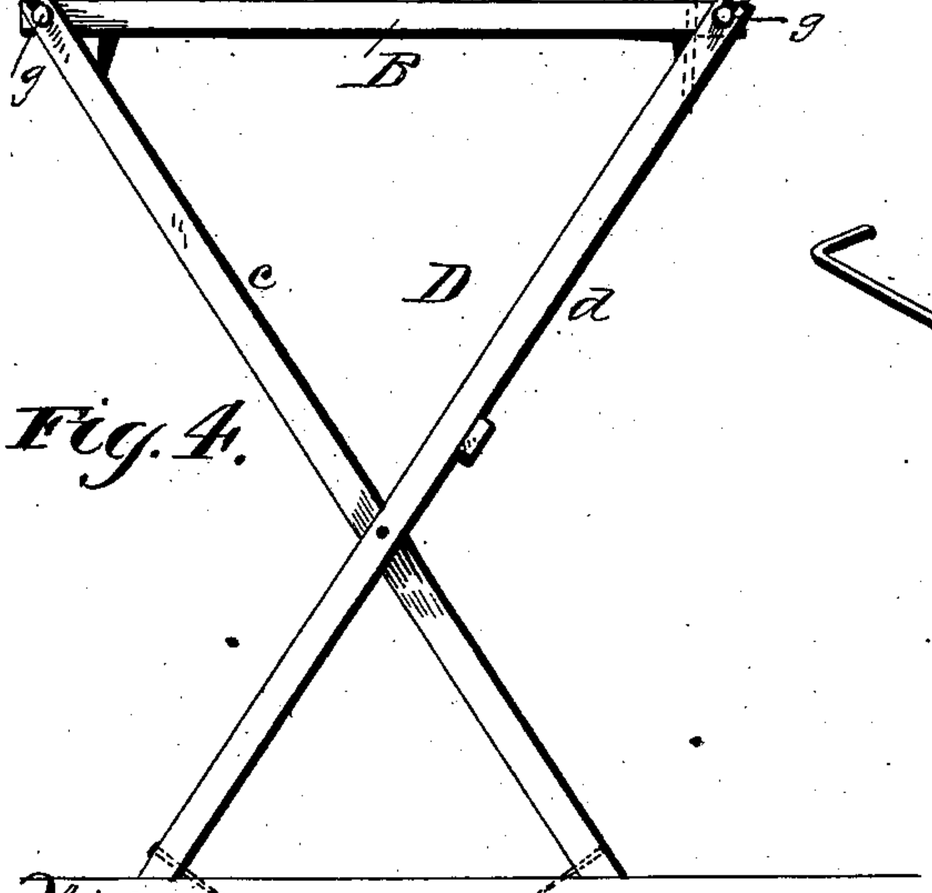
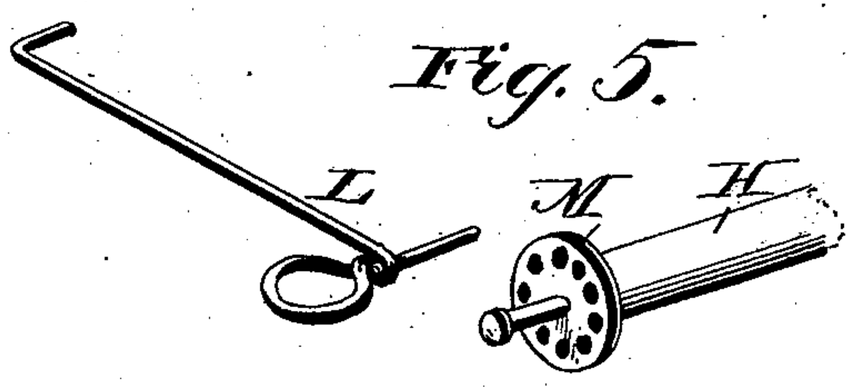


Fig. 5.



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UNITED STATES PATENT OFFICE.

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QUILTING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 534,020, dated February 12, 1895.

Application filed September 29, 1894. Serial No. 524,446. (No model.)

To all whom it may concern:

Be it known that I, JOHN MARION STUKES, a citizen of the United States, residing at Roswell, in the county of Chaves and Territory of New Mexico, have invented certain new and useful Improvements in Quilting Attachments 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 annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a quilting attachment for sewing machines that will possess both strength and durability and be self-feeding whereby the quilt or other goods is automatically moved along in either direction while being quilted or stitched by the machine and also providing the attachment with various devices to insure its perfect operation and materially enhance its value as a quilting attachment.

The invention consists in an attachment to a sewing machine of the character above described constructed substantially as shown in the drawings and hereinafter described and claimed.

Figure 1 of the drawings is a top plan view of the attachment constructed in accordance with my invention, showing the quilt rollers partly broken away to expose the top of the sewing machine and the parts connected therewith; Fig. 2, a sectional elevation taken on line *x x* of Fig. 1; Fig. 3, a perspective view of that portion of the attachment connecting directly with the sewing machine table; Fig. 4, an end view of the main frame showing the roller frame supported thereon. Fig. 5, shows a perspective view in detail of the means employed for locking the quilt rollers stationary.

In the accompanying drawings Y represents a sewing machine of any of the usual makes and to which my improved attachment is connected and operated in conjunction therewith.

The attachment consists principally of two frames, a main frame and a supplemental or roller-frame adapted to move thereon through its connections with the operating parts of the sewing machine. This main frame consists in part of the longitudinal bar A having at its ends suitable supplemental frames B extending at right angles thereto, and to the ends of these supplemental frames and to the longitudinal bar are journaled guide-rollers C having circumferential grooves *a* and at their end flanges *b* to prevent the roller-frame from moving laterally off the guide-rollers.

The main frame A is sustained at its ends by folding supports D which may be of any suitable construction but preferably of the bars *c d*. These supports are detachably connected to the arbors B in any convenient manner, either by having their ends slotted as shown at *f* to engage with pins *g* on the supplemental frames B, or by any other suitable and well known means.

When the main frame is not required for use, the supports therefor may be detached and removed therefrom and folded in a compact form for packing and transportation or for other purposes.

The main frame A at or near its center, has a clamping extension E by which the frame is connected to the table of the sewing machine. This clamping extension to the main frame may be of any preferred construction so long as it will securely hold the frame to the table of the sewing machine. In the present instance I have shown the clamping extension to the main frame as composed of the bars *h i j* connected together in any suitable manner and provided with clamping devices *k* for holding it to the table of the machine.

I do not wish to be understood as limiting my invention to any particular construction of clamping extension as various forms may be used without departing from the principle of my invention.

The clamping extension E is provided with a transverse guide-roller F for supporting the roller-frame G in its movement over the main frame. This roller frame has connected thereto the usual quilt-rollers H I J over which the quilt K passes, and said rollers are held stationary in their bearings after adjustment, by means of spring actuated latches L engaging with the perforated plates M secured to the ends of the rollers, as shown in Fig. 5 of the drawings. This adjustment of the rollers is required to bring an unstitched portion of the quilt on line with the needle of the machine, as is common in this class of attachments.

The roller-frame G has connected to its under side a track N which extends lengthwise thereof and engages with one of the grooves *a* of the guide-rollers C. This track N has a V-shape bearing to correspond with the shape of the grooves in the rollers, and this bearing is preferably of metal, said bearing being shown at *l* in Fig. 4 of the drawings. The V-shape bearing and the correspondingly formed grooves in the rollers provide a better and more effective guide to the roller frame with less liability of the track jumping the grooves and consequently a steadier motion of the roller frame is obtained.

The roller-frame may be of any suitable and well known construction found best adapted to the purpose and the rollers may be supported therein in any convenient manner and removable therefrom by means which may be considered most desirable.

A grooved guide-roller O is connected to the clamping extension E in any well known manner which also forms a support for the track N to guide the roller-frame in its movement.

A feeder P which connects with the crank-shaft of the sewing machine, automatically feeds the roller-frame with its quilt thereon along the table of the machine, as fast as the stitches are made. This feeder has spurs *m* to engage with the fabric of the quilt and as the feeder is rotated by this means the quilt and frame to which it is connected is moved along the main frame. One end of the feeder P is journaled in the clamping extension E and the opposite end is journaled in a pivoted lever R whereby the feeder may be lowered from contact with the quilt when found necessary.

The end of the lever to which the feeder is connected is retained in its raised position as shown in Fig. 2 of the drawings by the pin or stud *n* which projects from the bar *i* of the clamping extension to the main frame. The feeder P has a grooved pulley *o* rigidly connected thereto and over which passes a cord or belt *p*, said cord or belt engaging with a pulley *r* on the crank-shaft *s* of the sewing machine.

Any suitable and convenient means may be employed for imparting to the feeder a rotary motion through suitable intermediate connections with the driving mechanism of the sewing machine. This feeder takes off all the strain from the feeder of the sewing machine when the machine is in operation, and the adjustability of the feeder enables it to be brought in or out of working position. The guide-roller F prevents the roller-frame G from coming in contact with top of the sewing machine table and thereby enables its movement along the same to be attained without obstruction and also to prevent rubbing or otherwise marring the table.

The clamping extension E may be provided with felt, rubber, or other soft material upon its under side or that portion coming in contact with the table of the machine, as shown at *u*, so as to prevent any scratching or injury to said table when the extension is clamped thereon.

The guide-roller O although serving to guide the roller-frame G in its longitudinal movement over the main frame A, also serves as a gage-roller. I previously stated that said roller may be connected to the clamping-extension E and to the frame A in any well known manner, but it is essential that it should be so connected thereto as to admit of its lateral adjustment to set it at any distance from the needle of the machine whereby the lines of stitches may be made any distance apart with perfect exactness.

To render the roller O laterally adjustable, I have shown one of many well known means which may be employed, and consists in mounting the roller upon the end of a hanger S and a guide-rod *v* extends through the end of the hanger and through the roller and has its ends connected to the frame A and bar *j* of the extension E. The hanger has a handle T for sliding it in or out and a set-screw *w* and thumb-nut *y* for holding it in its adjusted position. The plurality of guide-grooves *a* in the roller C will make provision for this lateral adjustment of the guide and gage roller.

The main frame, the roller-frame, the hanger or means for rendering the gage-roller laterally adjustable, may be variously modified or changed without departing from the principle of my invention, as may also the means employed for imparting to the feeder a rotary motion through its connections with the operating mechanism of the machine.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A quilting attachment for sewing machines, consisting of a main frame provided with means for connecting it to the table of the machine, grooved guide rollers having flanges at their ends and connected to supplemental frames at the ends of the main frame, detachable and folding supports therefor, and a quilting frame supported upon the main frame and receiving its motion upon said frame by means of a feeding device connecting with the operating mechanism of the machine, substantially as and for the purpose specified.

2. A quilting attachment for sewing machines, consisting of a main frame provided with means for connecting it to the table of the machine, grooved and flanged rollers upon the ends thereof, and a laterally adjustable hanger carrying a gage-roller, and a quilting frame having upon its under side a track to engage with the grooves in the guide rollers and gage roller, substantially as and for the purpose set forth.

3. A quilting attachment for sewing machines, consisting of a main frame and means for connecting it to the table of the machine,

a feeding device consisting of a rotatable shaft having spurs and means for rendering said device vertically adjustable, and a quilting frame movable upon the main frame through the medium of the feeding device, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN MARION STUKES.

Witnesses:
JAS. A. PRAGER,
D. H. DEANE.