

(No Model.)

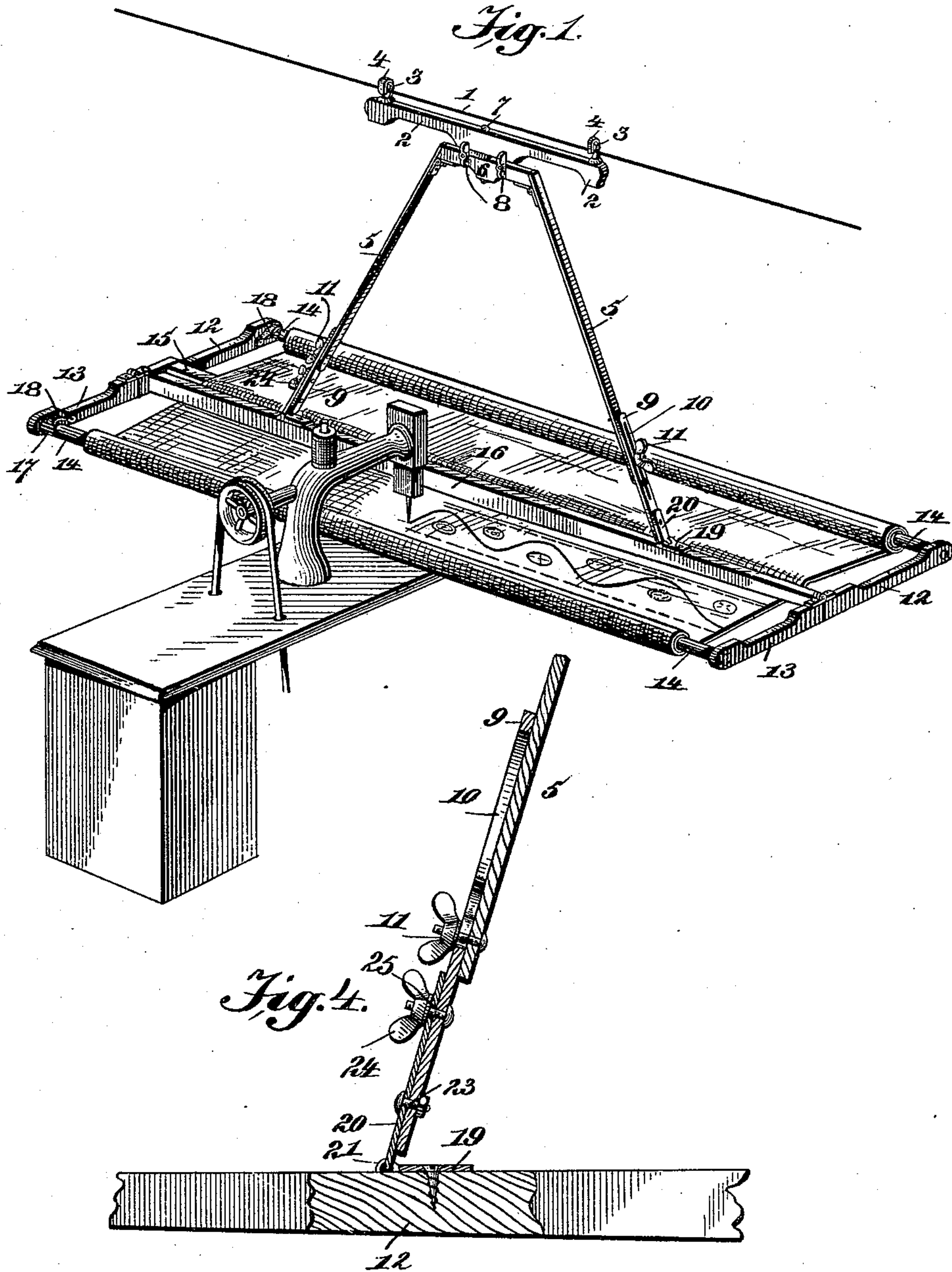
2 Sheets—Sheet 1.

J. W. CLAYTON.

QUILTING ATTACHMENT FOR SEWING MACHINES.

No. 581,063.

Patented Apr. 20, 1897.



Inventor

John W. Clayton

Witnesses

H. G. Daterich
V. B. Hillyard.

By *his* Attorneys.

C. A. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

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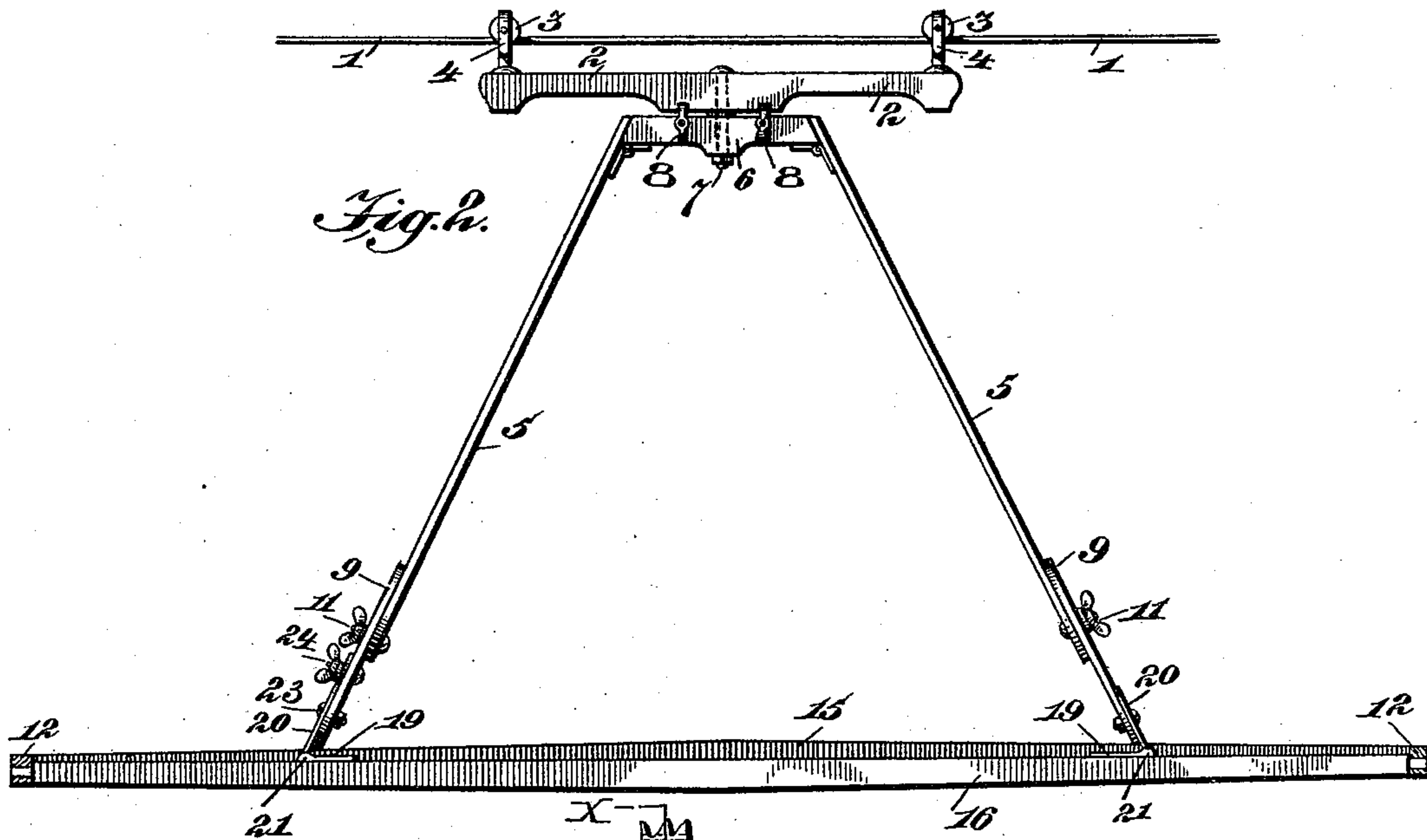


Fig. 2.

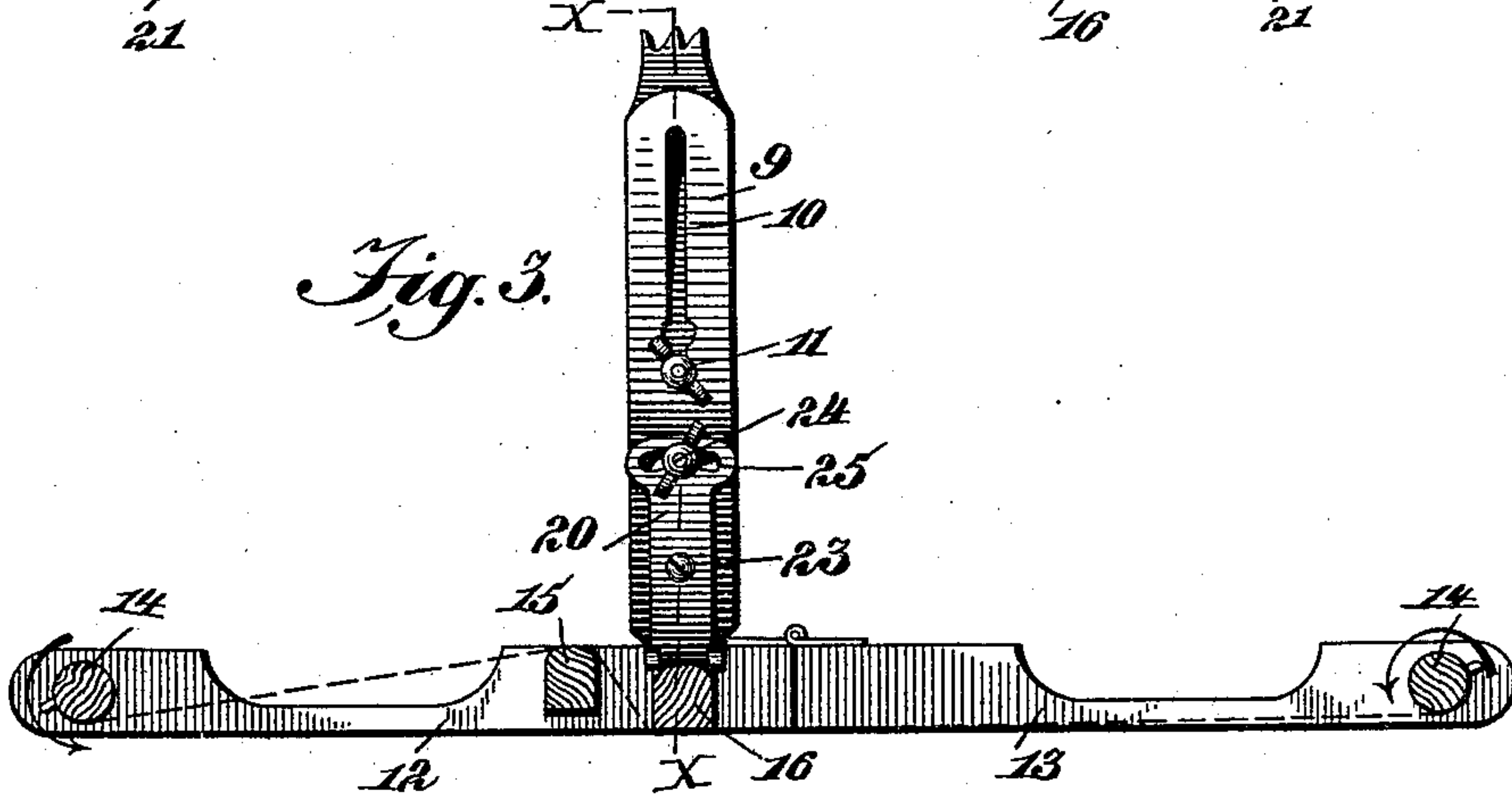


Fig. 3.

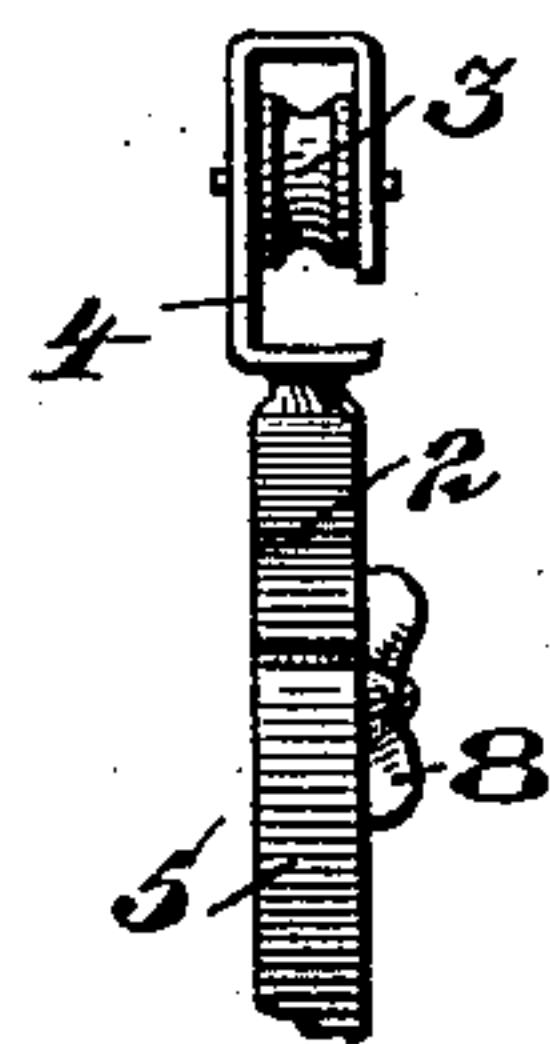


Fig. 4.

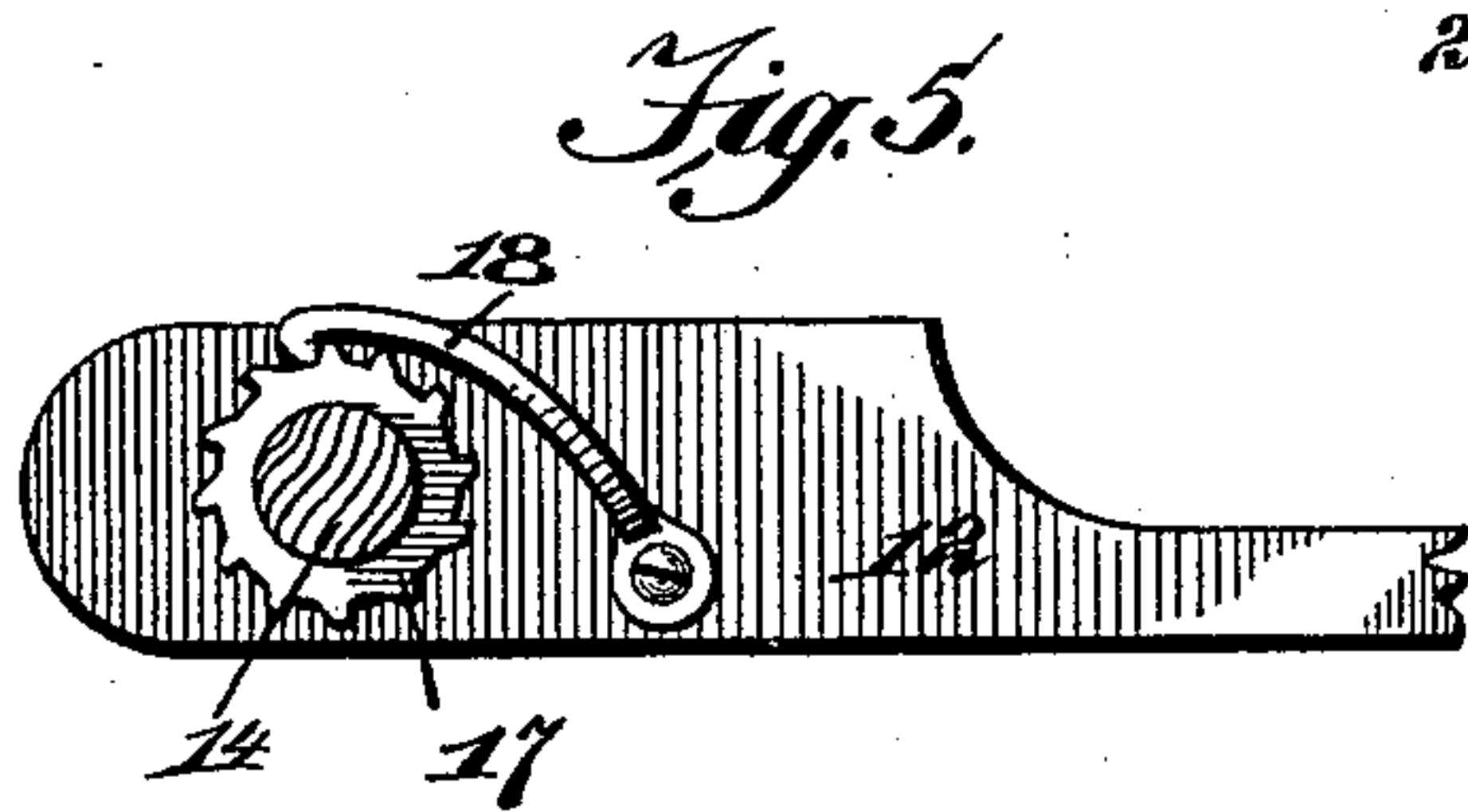


Fig. 5.

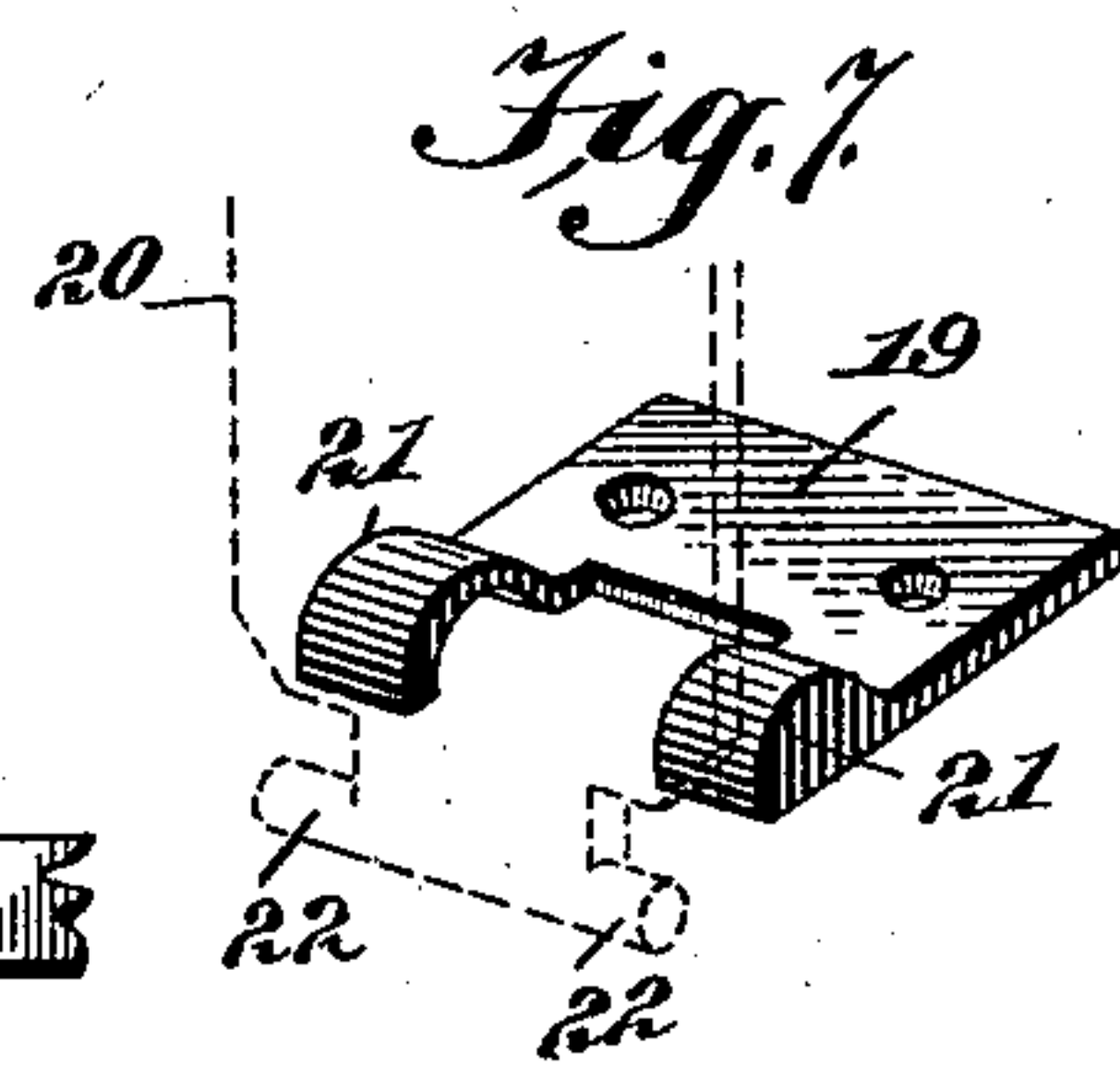


Fig. 6.

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UNITED STATES PATENT OFFICE.

JOHN WM. CLAYTON, OF CHATTANOOGA, TENNESSEE.

QUILTING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 581,063, dated April 20, 1897.

Application filed September 10, 1896. Serial No. 605,424. (No model.)

To all whom it may concern:

Be it known that I, JOHN WM. CLAYTON, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented a new and useful Quilting-Frame, of which the following is a specification.

This invention relates to quilting attachments for sewing-machines, and is designed particularly as an improvement on Patent No. 482,467, granted to me September 13, 1892, and has for its object to simplify and cheapen the construction, facilitate the assembling and disconnecting of the parts when setting up the attachment, or reducing it to a knock-down condition to be stored in a small space for transporting or when not required for immediate use.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view showing the invention applied. Fig. 2 is a side elevation thereof. Fig. 3 is a transverse section of the quilting-frame having the upper portion of the suspending device broken away. Fig. 4 is a detail section about on the line X X of Fig. 3. Fig. 5 is a detail view showing the ratchet-and-pawl connection for preventing backward rotation of the rollers upon which the material is wound. Fig. 6 is an end view of the carriage and the upper portion of the suspending device. Fig. 7 is a detail view of the hinge connection between the quilting-frame and the suspending device.

Corresponding and like parts are referred to in the following description and indicated in the several views of the accompanying drawings by the same reference-characters.

The track-wire 1 is secured at its ends and subjected to tension in any of the usual ways, and the carriage bearing the quilting-frame is adapted to travel thereon, and consists of

a beam 2 and grooved pulleys 3, journaled in frames 4, located at the ends of the beam 2, and provided in one side with an opening to enable the carriage to be quickly placed upon the track-wire or removed therefrom.

The suspending device consists of sectional side bars 5 and a beam 6, to the ends of which the bars 5 are hinged near their upper extremities. A bolt 7 pivotally connects the suspending device with the carriage, so as to admit of the quilting-frame being turned horizontally to any required position which may be found necessary when quilting in designs. Turn-buttons 8 are provided on one side of the beam 6, and are disposed so as to be turned vertically to extend across the joint formed between the beams 2 and 6, so as to secure the latter from turning when quilting in straight lines.

When the quilting departs from a straight line and is to appear in curves, loops, and fanciful designs, the turn-buttons 8 are moved so as to release the suspending device and admit of the latter being turned relative to the carriage to enable the stitching to follow the outline of the required design. The extensible parts 9 of the sectional side bars have longitudinal slots 10, in which operate a bolt and thumb-nut 11 for securing the extensible parts in any adjusted position. Each slot 10 is enlarged at a convenient point in its length to admit of the thumb-nut of the fastening-bolt to pass readily therethrough when placing the parts together or separating them. By having the suspending device adjustable it can be lengthened and shortened to adapt the height of the quilting-frame to the level of the sewing-machine with which the quilting attachment is used.

The quilting-frame comprises end bars composed of sections 12 and 13, which are hinged together, so as to admit of the one section folding upon the other, side rollers 14, and longitudinal bars 15 and 16, extending in parallel relation and spaced apart, the bar 15 having its top side rounding and declining from a middle point toward its extremities and the bar 16 having its bottom side straight and inclining upwardly from a middle point toward its ends. These bars 15 and 16 serve to brace the end bars of the frame to create a tension upon the goods to

be quilted and to smooth and straighten the goods and remove any surplus from the center thereof occasioned by the rollers sagging between their ends when the material to be quilted is subjected to tension. The bar 15 is set near the top side of the end bars of the quilting-frame and the bar 16 near the lower side, so as to cause the goods passing over the bar 15 and beneath the bar 16 to incline rapidly in the space formed between the two bars 15 and 16, as clearly indicated by the dotted lines in Fig. 3. The rollers 14 are journaled at their ends near the extremities of the end bars of the quilting-frame, and each has a toothed ring 17 secured to an end thereof, to cooperate with a pawl 18 for holding the rollers from turning backward when the material is stretched and in condition to be quilted. The pawls 18 curve in their length away from the toothed rings 17 and extend over the latter, so as the better to engage with the teeth thereof when turning the roller to secure the requisite tension upon the goods.

The side bars of the suspending device have hinge connection with the longitudinal bar 16, so as to admit of the parts 9 thereof folding upon the bar 16 when disconnected from the upper portion of the suspending device. The hinge-joint is provided by means of plates 19 and 20, the plate 19 being secured to the top side of the bar 16 and having ears 21, which are recessed in their lower faces to receive journals 22, provided at the lower end of the plate 20. The journals 22 are inserted in the recessed face of the ears 21 and are held in place by means of the bar 16, which closes the open side of the recesses. The plate 20 has pivotal connection with the extensible part 9 by means of a bolt 23, thereby admitting of the quilting-frame tilting for any required purpose. If it be required to secure the quilting-frame in any position relative to its suspending device, this result can

be effected by means of a fastening-bolt and thumb-nut 24, carried by an extension 9 and operating in an arcuate slot 25, provided in one of the plates 20.

Having thus described the invention, what is claimed as new is—

1. In a quilting-frame comprising end bars and side rollers, a longitudinal bar connecting the end bars at a point between the rollers and having its active face inclining from an intermediate point in its length toward its extremities, whereby its middle portion bulges away from the plane of the quilting-frame to stretch the goods to be quilted laterally, substantially as set forth.

2. In a quilting-frame comprising end bars and side rollers, intermediate longitudinal bars connecting the end bars and extending in parallel relation and spaced apart a short distance, and having their opposite active faces upon opposite sides of the quilting-frame inclining longitudinally away from the plane of the quilting-frame from their ends toward a middle point, substantially as and for the purpose set forth.

3. In a quilting-frame comprising end bars and longitudinal rollers, intermediate parallel tension-bars connecting the end bars, and having the top face of one bar rounding transversely and declining from a middle point of its length longitudinally toward its extremities, and the other longitudinal bar having its bottom face straight between its sides and inclining from a middle point in its length upwardly toward its extremities, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN WM. CLAYTON.

Witnesses:

J. H. CARTER,
A. B. CARLISLE.