

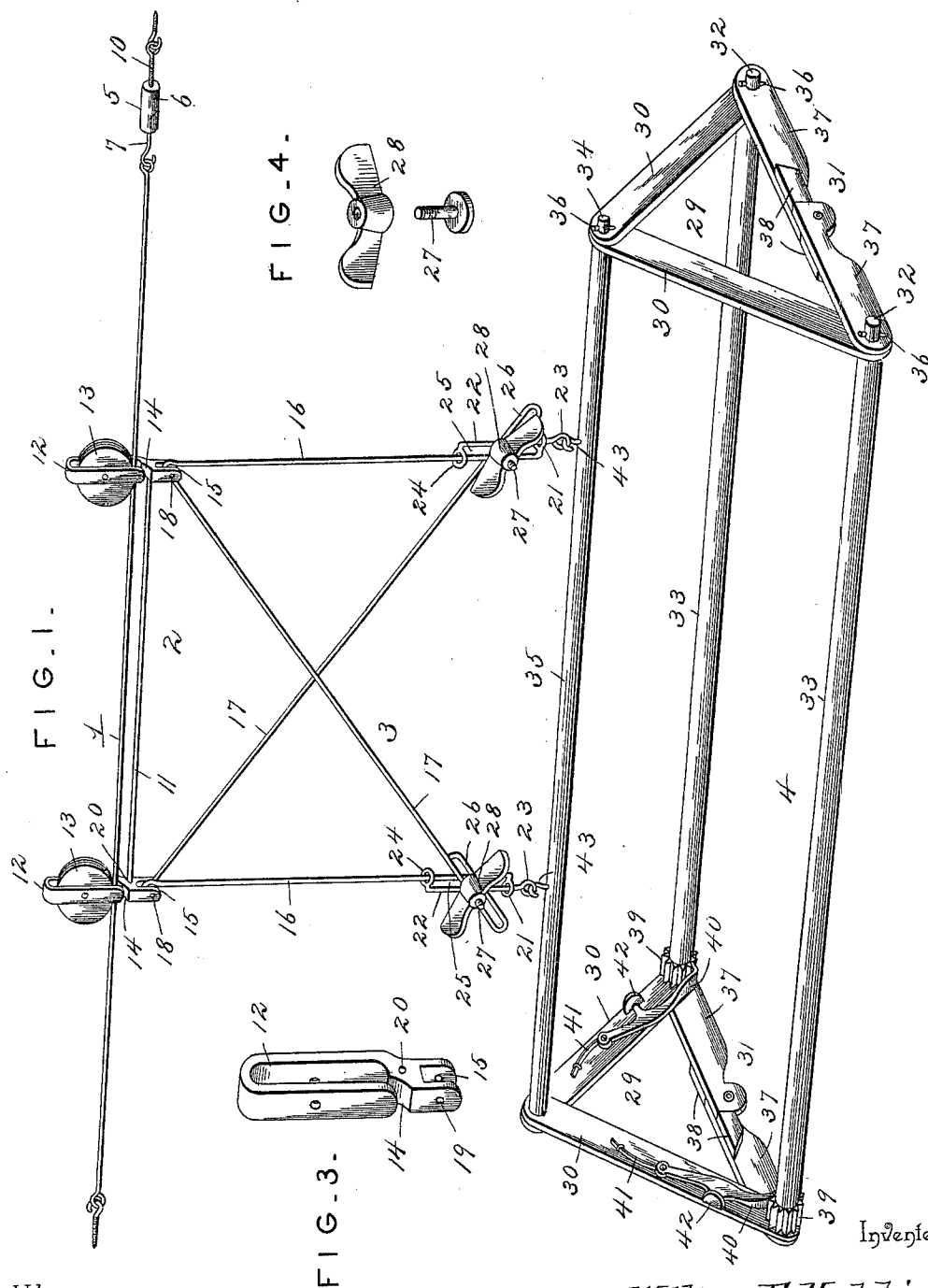
(No Model.)

2 Sheets—Sheet 1.

W. E. HUTCHISON.
QUILTING FRAME FOR SEWING MACHINES.

No. 566,320.

Patented Aug. 25, 1896.



Witnesses

Harry L. Ames,
V. B. Willyard.

By *His* Attorneys,

William E. Hutchison.

Cash & Co.

(No Model.)

2 Sheets—Sheet 2.

W. E. HUTCHISON.
QUILTING FRAME FOR SEWING MACHINES.

No. 566,320.

Patented Aug. 25, 1896.

FIG. 2.

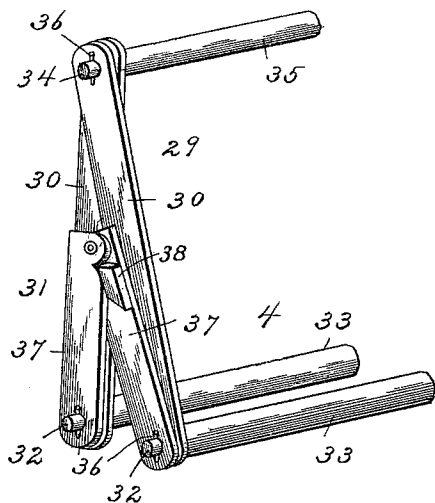


FIG. 5.

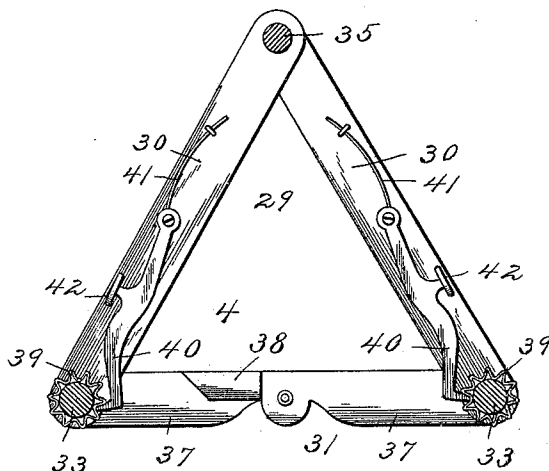


FIG. 6.

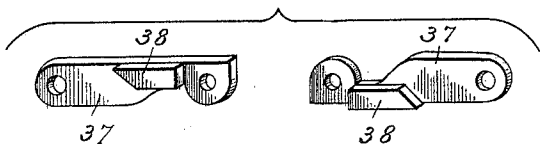


FIG. 7.

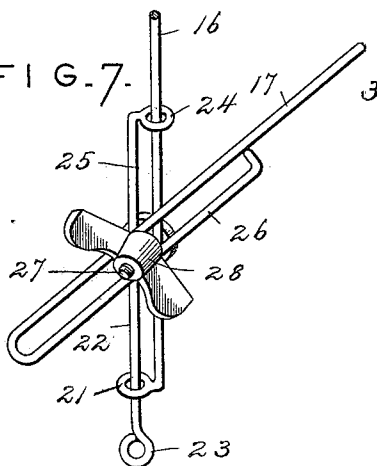
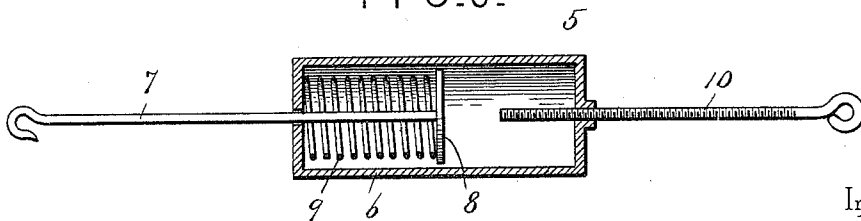


FIG. 8.



Witnesses

Harry L. Amiel.
U. B. Hillyard.

By *his* Attorneys,
William E. Hutchison.

Cash & Co.

Inventor

UNITED STATES PATENT OFFICE.

WILLIAM E. HUTCHISON, OF LITCHFIELD, ILLINOIS.

QUILTING-FRAME FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 566,320, dated August 25, 1896.

Application filed December 31, 1895. Serial No. 573,924. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. HUTCHISON, a citizen of the United States, residing at Litchfield, in the county of Montgomery and State of Illinois, have invented a new and useful Quilting-Frame, of which the following is a specification.

This invention relates to quilting-frames to be used in connection with an ordinary sewing-machine or for quilting by hand, as required, and aims to provide a light structure for supporting the goods to be quilted, which can be folded into a small compass for storing when not in use and which will be effective for the purpose aforesaid, and to combine therewith a suspending-frame and carriage which can be adjusted to support the quilting-frame at any required elevation to suit the height of the sewing-machine or the elevation of the track upon which the carriage travels when moving the frame longitudinally during the process of quilting.

Various other objects and advantages are sought to be attained and will appear as the nature of the invention is unfolded, and to this end the improvement consists in certain details of construction, novel features, and peculiar combinations of parts, which hereinafter will be more fully set forth, illustrated, and claimed.

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 of a quilting appliance constructed in accordance with this invention. Fig. 2 is a detail view showing the frame folded. Fig. 3 is a detail view of a frame which is supplied with a supporting-wheel to travel upon the track. Fig. 4 is a detail view of the thumb-nut and bolt for adjustably connecting the parts of the suspending-frame. Fig. 5 is a detail view of a side of the quilting-frame, the dogs having connection therewith, and the rollers held against backward rotation by means of the said dogs. Fig. 6 shows, respectively, the obverse and reverse sides of the component parts of a horizontal bar of the quilting-frame, and which

parts are hinged or pivoted together. Fig. 7 is an enlarged detail view of the adjacent ends of the adjustable parts comprising an end portion of the suspension-frame. Fig. 8 is a detail view in section of the tightener or compensator for the track.

Like numerals of reference denote similar and corresponding parts in all the figures of the drawings, and in the latter—

1 indicates the track; 2, the carriage; 3, the suspending-frame, and 4 the quilting-frame.

The track 1 is preferably a wire, although a cable or rod could be employed with equally good results, and this track is supported overhead in any convenient way and is provided at one end with a wire tightener or compensator 5, which consists of a casing 6, a wire 7, operating loosely through one end of the casing and having a stop 8 at its inner end, a spring 9, mounted upon the inner end portion of the wire 7 and confined between the stop 8 and that end of the casing through which the wire 7 passes, and a second wire 10, threaded into the opposite end of the casing, so as to vary the tension upon the spring 9, and consequently upon the track 1, as will be readily understood. The spring 9 is not absolutely necessary, since a proper tension can be attained simply by moving the casing 6 upon the threaded wire 10, which is effected by rotating the casing, as will be readily understood.

While the spring 9 may not be resorted to, it is preferred, since it will automatically allow for contraction and expansion of the track and maintain the latter sufficiently taut for the free traveling thereon of the carriage.

The carriage consists, essentially, of a longitudinal rod or wire 11, end frames 12, and supporting-wheels 13, the latter being mounted in the upper ends of the frames 12. Each frame 12 has a slot 14 opening through its side to admit of the introduction of the track 1 to the supporting-wheel 13 and is provided with a notch 15 in its lower end to receive the upper ends of a pendent rod or wire 16 and a brace 17, these parts 16 and 17 having eyes at their upper ends to receive a pin 18, which passes through registering openings 19 in the notched end 15. An opening 20 extends through the lower portion of each frame above the notch 15 and at right angles to the

openings 19 and is intended to receive the end of the longitudinal wire 11, which is secured therein. The lower end of the wire or rod 16 is bent laterally and formed into an eye 21, and a short wire or rod 22 operates loosely through the eye 21 and is formed at its lower end into an eye 23 and has its upper end bent laterally and formed into an eye 24, which receives the lower portion of the wire or rod 16. A space 25 is inclosed by the eyes 21 and 24 and the portions of the wires 16 and 22 coming between them. The braces 17 cross each other about midway of their ends and have loops 26 at their lower ends to bear against the sides of the wires 16 and 22 opposite the spaces 25, and bolts 27, having thumb-nuts 28, pass through the loops 26 and the spaces 25 and clamp the parts 16, 22, and 17 in the located position. Obviously by loosening the thumb-nuts 28 the component parts of the suspending-frame, which are the elements 16, 17, and 22, can be adjusted so as to elevate or lower the quilting-frame, as will be readily understood, and by tightening the thumb-nuts 28 the parts of the suspending-frame will be clamped between the heads of the bolts 27 and the said thumb-nuts 28 and securely held in place thereby.

The quilting-frame comprises similar side pieces 29 of approximately triangular shape, and these side pieces consist of side bars 30 and a horizontal bar 31, which overlap at their ends, and which are secured together by the journals 32 of the rollers 33 and by the reduced ends 34 of a pole 35, passing through registering openings in the overlapping ends of the said bars and receiving pins 36, by means of which the said bars are held in the adjusted position. The horizontal bars 31 are composed of similar parts 37, which are hinged or pivoted together at their inner ends, and which have blocks 38 on their inner or opposing sides, which form stops to engage with the adjacent ends of the opposite parts, so as to hold them in alinement when the quilting-frame is extended for use. This arrangement of the parts 37 and 38 forms in effect a rule-joint between the parts 37, and enables the latter to be folded upwardly when it is required to reduce the quilting-frame to a compact form, as shown most clearly in Fig. 2.

The rollers 33 are intended to support the goods to be quilted, and are provided at one end with ratchet-teeth 39, which are adapted to be engaged by dogs 40, pivoted to the side bars 30, so as to hold the rollers 33 against rotation when turned to hold the goods taut. These ratchet-teeth 39 may be formed in any convenient manner, and for the sake of simplicity of construction a fluted strip of sheet metal is bent around the ends of the rollers and is secured thereto in any desired and substantial manner. Springs 41 hold the free ends of the dogs 40 in engagement with the ratchet-teeth 39, and the said dogs have projections 42, which extend outwardly and

are adapted to be pressed upon to disengage the dogs from the ratchet-teeth 39 when it is required to rotate the rollers 33 upon their journals, either for loosening or tightening the goods, as will be readily understood. The pole 35 has hooks 43 secured thereto to be engaged with the eyes 23 of the suspending-frame, and by means of which connection is had between the quilting-frame and the suspending structure.

It will be observed that the pole 35 is located directly above the rollers 33 and opposite the space formed between them. Hence the quilting-frame will be supported in a horizontal position and will be balanced; and, moreover, by having the pole 35 elevated it is out of the way of the arm of the sewing-machine when the latter is used, and will not interfere with the arm of the operator in the event of the quilting being done by hand.

When it is required to lay the appliance aside, the quilting-frame is disconnected from the supporting structure and is folded by breaking the rule-joint between the parts of the horizontal bars 31, thereby permitting the bars 30 to be folded, and the carriage is disconnected from the track by passing the latter through the slots 14 of the frames 12, and if it be required to fold the suspending-frame the bolts 27 are removed and the parts 16 and 17 folded upon the longitudinal wire or rod 11, as will be readily understood.

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

1. The combination with a track, and a quilting-frame, of a carriage, and a suspending-frame between the carriage and the quilting-frame, comprising wires or rods having eyes 21 and 24, respectively, to embrace the end portions of the opposite parts, and braces 17 having loops at their lower ends to receive the fastenings by means of which the parts are adjustably connected together so as to admit of the vertical adjustment of the quilting-frame, substantially as set forth.

2. The combination with a quilting-frame and a track, of a carriage for supporting the quilting-frame, the same comprising frames 12 connected together and having slots in their sides for the ingress and egress of the track, wheels mounted in the said frames and adapted to travel upon the track, supports pendent from the frames and composed of parts adjustably connected together, and diagonally disposed and crossing braces connecting the upper portion of the carriage with the lower ends of the pendent supports, substantially in the manner set forth for the purpose described.

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

WILLIAM E. HUTCHISON.

Witnesses:

ADDISON C. THORP,
ALBERT R. STANSIFER.