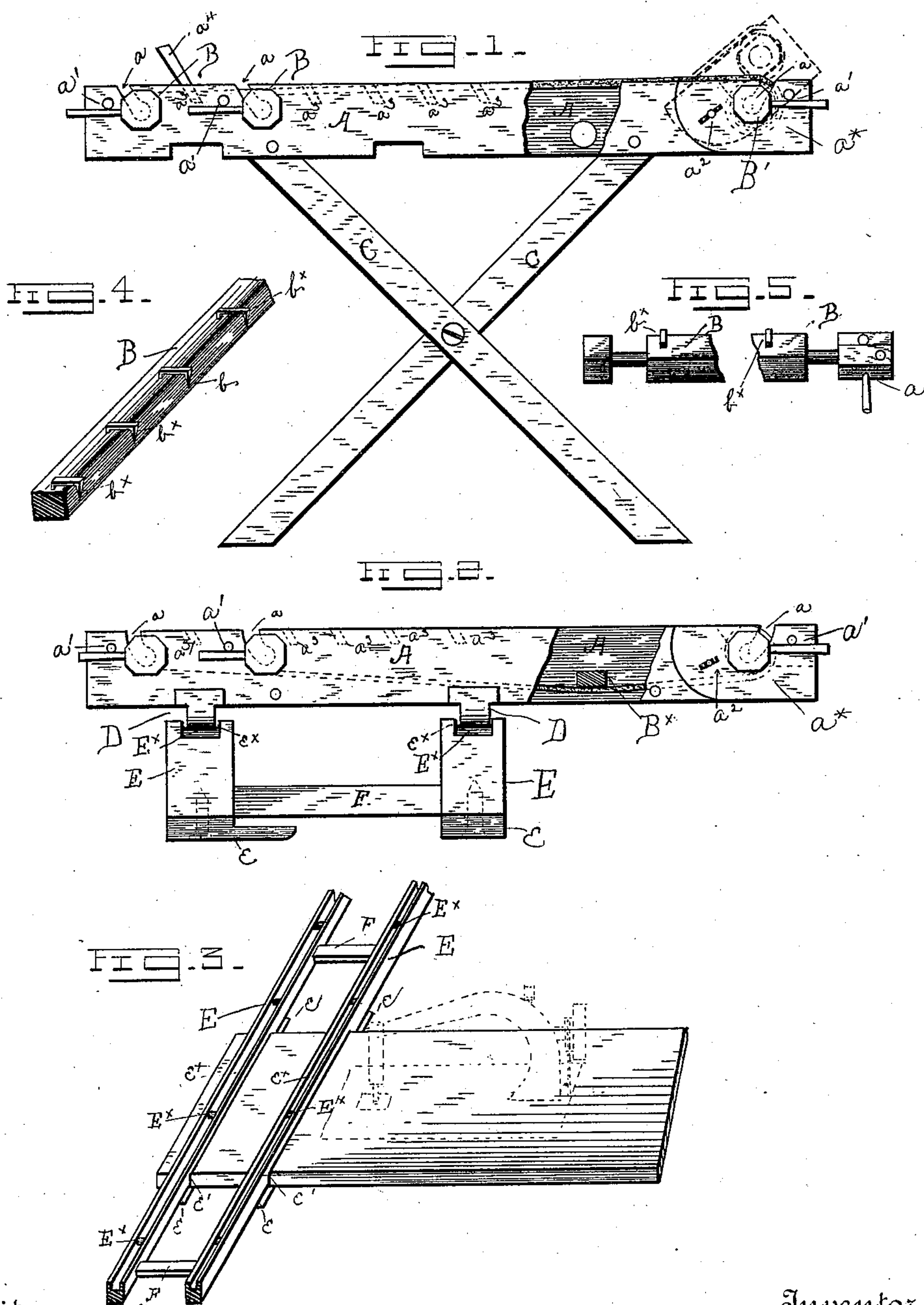


(No Model.)

A. B. WALKER.
QUILTING FRAME.

No. 353,042.

Patented Nov. 23, 1886.



Witnesses

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ABRAHAM B. WALKER, OF ORANGEBURG, SOUTH CAROLINA, ASSIGNOR TO
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QUILTING-FRAME.

SPECIFICATION forming part of Letters Patent No. 353,042, dated November 23, 1886.

Application filed April 1, 1886. Serial No. 197,448. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM B. WALKER, a citizen of the United States, residing at Orangeburg, in the county of Orangeburg and State of South Carolina, have invented certain new and useful Improvements in Quilting-Frames; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to quilting-frames, and has for its object the provision of a frame adapted either for hand use or for use upon a sewing-machine.

The device is so constructed that by simply removing the cloth-holding frame from its supports and placing it upon rails, which run in a track provided for the purpose, the change from a hand to a machine frame is made. As a hand-sewing frame the device possesses novel features, and many of the same features are retained in the frame when used on a sewing-machine. I provide two removable rollers for holding the upper and under textile material before the wadding is inserted and the sewing done, and a single winding-up roller for receiving the sewed quilt. The pair of rollers which hold the cloth before the filling or wadding is introduced are placed upon one side of the frame, and the single winding-up roller is placed upon the other. All three of the rollers are readily removable by reason of the peculiar character of the bearings in which they are held, so that the upper cloth-roller may be hoisted out of position and the wadding inserted between the two surfaces, and then this roller replaced and the sewing proceeded with. All of the rollers are provided with peculiarly shaped and applied hooks, and with means for being adjusted and set so as to hold the material taut. For hand use a support is provided to hold the frame at the proper height for convenient work. This support may be made in any suitable way so as to be readily detachable from the frame, and is preferably formed in such manner as to be readily taken apart or folded and laid aside.

When the quilting-frame is to be used upon a sewing-machine, the cloth will be so wound upon the pair of rollers as to lie under them, and a tension-rod is provided at some suitable point in the width of the frame, preferably closer to the winding-up roller, in order to hold the cloth down squarely upon the work-plate of the sewing-machine; and in order to prevent the lifting of the material from said work-plate, by reason of the increased size of the winding-up roller as the amount of quilting done increases, said winding-up roller is placed in pivoted or tilting bearings, which permit it to rise, while the work is still retained evenly upon the work-plate.

I provide rails which are readily attachable to the frame when it is desired to be used upon a sewing-machine. These rails may or may not, as desired, be retained upon the frame when used for hand-sewing. They work in grooved tracks which are provided with rollers in the bottom of the grooves to permit the easy movement of the rails therein. These tracks are provided with means for being secured to the sewing-machine, which preferably consist of clamps pivoted or otherwise suitably secured to the bottom of the tracks, in order to take hold of some suitable portion of the sewing-machine and retain the tracks thereon.

When the work has so far progressed as that the cloth upon the pair of rollers is all unwound, those rollers may be brought nearer to the needle of the machine by moving them upon the top of the frame and allowing them to rest against pins which may be inserted in any one of a series of holes provided for that purpose.

The following detailed description will more clearly indicate the nature of my said invention and the manner in which I carry the same into practice.

The accompanying drawings illustrate what I consider the best means for so carrying it into practice.

Figure 1 is an end elevation showing the frame set up for use in hand-sewing. Fig. 2 is an end elevation showing same filled for machine use. Fig. 3 shows the track upon a machine-table. Figs. 4 and 5 are details of the rollers.

Similar letters of reference indicate corresponding parts in all the figures in which they occur.

I will first describe the device as equipped for hand use, necessarily mentioning many of the parts which are common to it both as a hand and a machine frame.

A A represent the end portions or parts, which I denominate the "frame." These parts have bearings a , of a curved or undercut form, to receive the gudgeons of the rollers. The peculiar form of these bearings serves to hold the rollers safely in place, and at the same time permit their being readily removed. B B are a pair of rollers which hold the two thicknesses of cloth before the quilting operation is undergone. B' is the roller upon which the sewed quilt is wound up. On the ends of these rollers projecting beyond the parts A A are provided heads to prevent them from slipping longitudinally. On one end of the rollers the heads are made in the form of a ratchet or adjusting and setting devices, as shown at a' , by means of which the material is unwound from the rollers B B, and the roller B' turns to take up the finished material.

The rollers B B and B' are provided with hooks b^* , which are driven or otherwise fastened in one of the rectangular faces of the rollers and bent over the corner thereof, as shown. These serve to receive the ends of the cloth and hold it securely upon the rollers, almost entirely obviating the liability of its slipping off accidentally, even when entirely unwound, and at the same time the points of the hooks, lying parallel with one of the faces of the roller, will not pierce or tear the succeeding convolutions of cloth. In use by hand the cloth will be wound over the rollers, as indicated by full lines in Fig. 1.

C represents the support or legs for the hand-frame, which are preferably made as shown, so as to be readily removed and folded. The tops of the parts of the support enter mortises in the under side of the frame A.

When the device is to be used on a sewing-machine, I remove the legs or supports C and apply the rails D, as shown in Fig. 2. I also wind the cloth under the rolls, as shown in dotted lines in Fig. 2, and provide a tension-rod, B*, which holds the cloth under it squarely upon the work-plate of the sewing-machine. The winding-up roller B' is mounted in pivoted bearings a^* , which are held upon the parts A by means of a screw and nut, a^2 , as shown in Figs. 1 and 2. The purpose of these bearings is to permit the winding-up roller to rise above the work-plate as its diameter increases in consequence of the increased amount of finished quilt which is wound upon it, and thus obviating the disturbance of the work on the work-plate. These pivoted bearing-pieces a^* rise or turn upon their pivots as the size of the roll increases, so as to permit the roll to become greater in diameter than from the longitudinal center line of part A to the work-plate of the machine without raising the frame

A from the track E. This elevation is shown by dotted lines in Fig. 1. When the material is all unwound from the rollers B B, a portion of the quilt will remain unstitched if they are retained in the bearings already described, and the remainder of the stitching has to be done by hand. In order to overcome this difficulty and permit the entire quilt to be stitched on the machine, I provide a series of holes, a^3 , formed in the top of the parts A, and insert pins, as shown at a^4 , in any desired hole, and advance the rollers against said pins step by step until the entire quilt is stitched upon the machine.

The wadding or filling is introduced between the two plies or layers of the textile material by lifting the roller B, upon which the upper ply is wound, and after the filling is introduced restoring said roller to its place. As thus equipped and mounted upon the rails, the device is ready for operation under the needle of the sewing-machine. I provide a track, E, which is held upon the machine by means of clamps e , which are pivoted or otherwise secured to the under side of the tracks, and when turned into position for use rest over mortises or cuts e' , formed in the under side of said tracks. One of the mortises is made deeper than the other, in order to raise it above the work-plate of the machine. Cross-pieces F unite the tracks near their ends and bear legs f , which rest upon the floor and serve to steady the tracks. Grooves e^* are formed in the upper face of the tracks, and rollers E* are provided therein, upon which the bottoms of the rails ride.

The winding-up roller B' will lie under the arm of the machine, and the work will be fed in the ordinary manner by the machine-feed.

Modifications may be made in my device without departing from its spirit or sacrificing its advantages.

When the frame is intended for hand use only, the pivoted bearings a^* may be dispensed with and a bearing cut directly in the parts A used in lieu thereof.

As already stated, the rails may be permanently affixed to frame A; but I prefer to make them detachable.

The supports for the frame, when used for hand-sewing, may be of any desired form besides that shown in the drawings.

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

1. In a quilting-frame, the combination, with the parts A, of the angular rollers B B and B', having hooks, as described, secured in one face and bent over the corner of the roller, with space between said hooks and roller for the reception of the cloth, as set forth.

2. In a quilting-frame, the combination, with the parts A, having the pivoted end bearing-pieces, a^* , thereon, of the cloth and finished-quilt rollers, the finished-quilt roller lying in said pivoted bearing-pieces, substantially as described.

3. In a quilting-frame, the combination, with the parts A and a^* , of the rollers B B and B', the latter resting in part a^* , and the tension-rod, substantially as and for the purpose set forth.

4. In a quilting-frame, the combination, with the parts A A, having the lines of holes on the top thereof, and pins insertible in said holes, of the cloth-rolls B, removable, as described, the winding-up roller B', and the tension-rod, all substantially as described.

5. The herein-described quilting-frame, consisting of the end pieces or parts, A A, having

the pivoted bearings a^* , the rollers B B and B', the latter being held in bearings a^* , the removable rails D, the grooved tracks E, having rollers, as described, the cut-away portions in said tracks, and the clamps e , all constructed and combined to operate as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ABRAHAM B. WALKER.

Witnesses:

W. G. ALBERGROTTI,
J. L. HEIDTMAN.