(No Model.) 6 Sheets—Sheet 1.

F. AMES.

APPARATUS FOR SEWING CARPET CORNERS.

No. 520,909. Patented June 5, 1894.

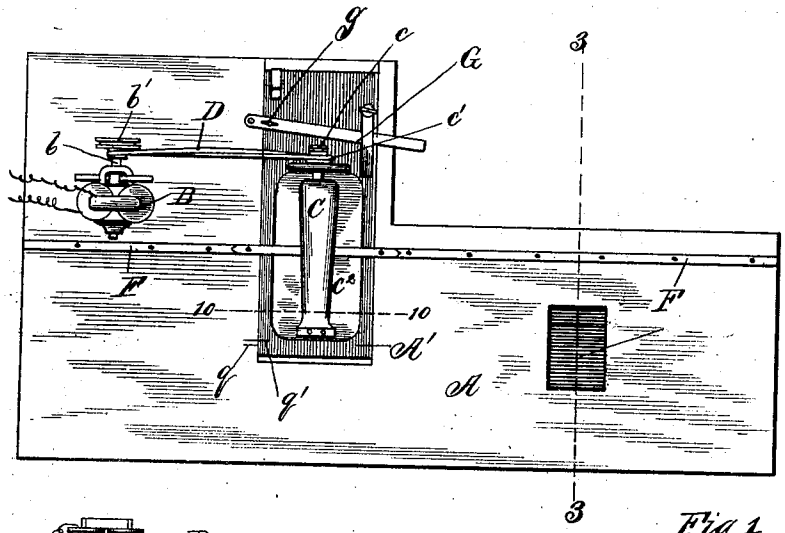

Fig 1

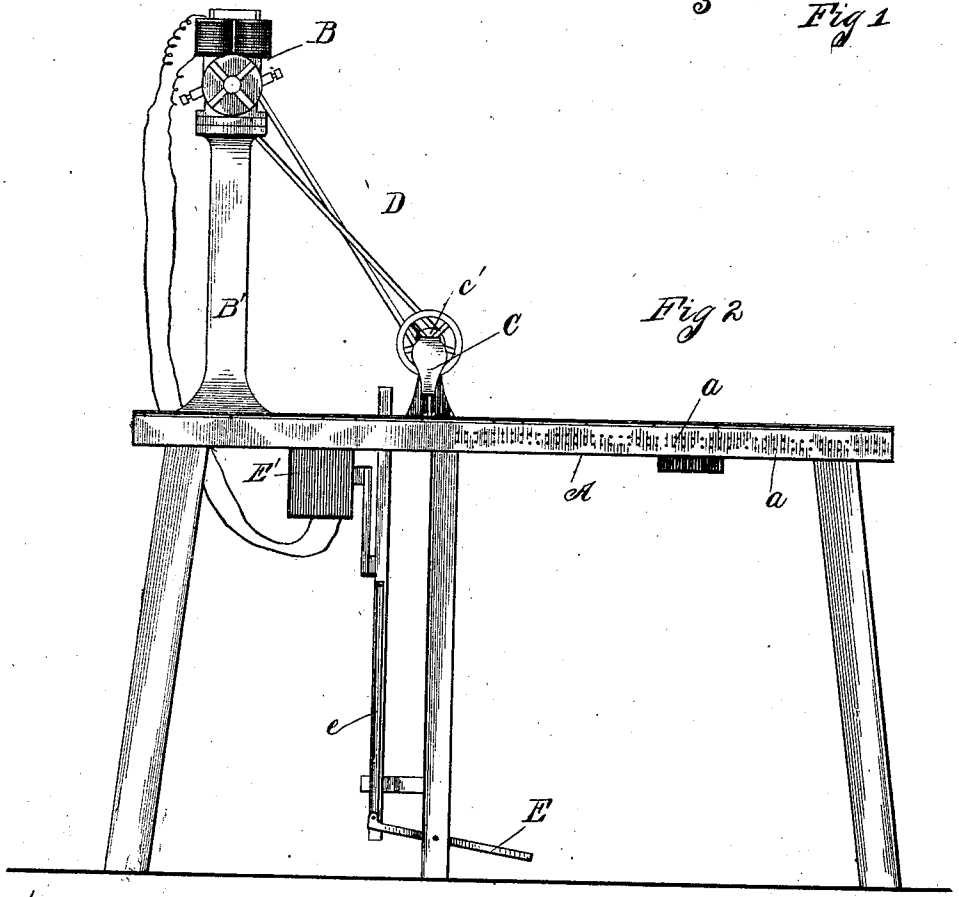

Fig 2

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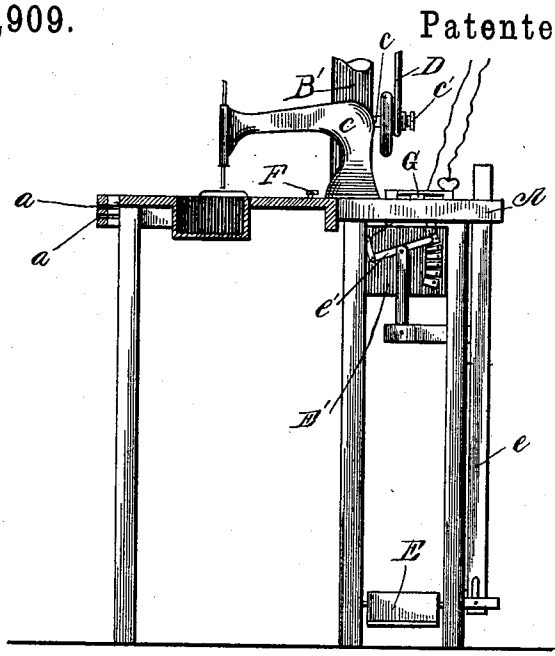


Fig 3

Fig 4

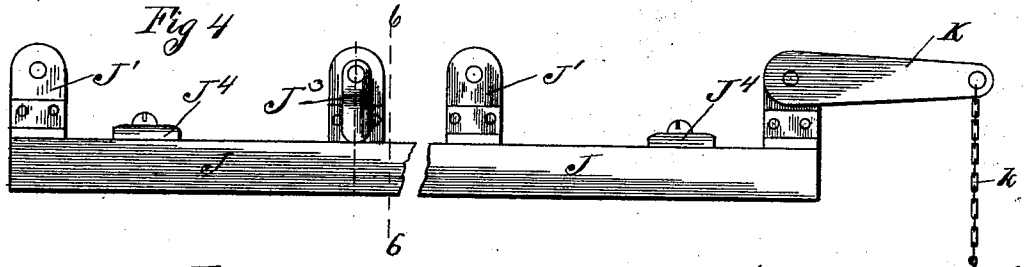


Fig 5

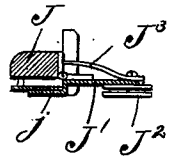


Fig 6

Fig 7

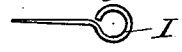


Fig 9

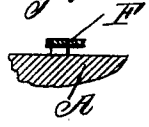
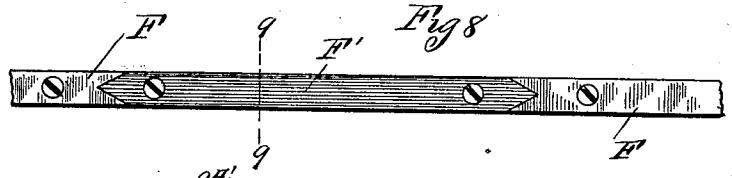


Fig 8



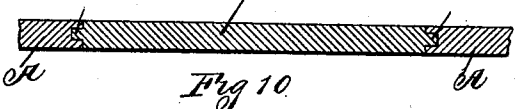


Fig 10

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F. AMES.

APPARATUS FOR SEWING CARPET CORNERS.

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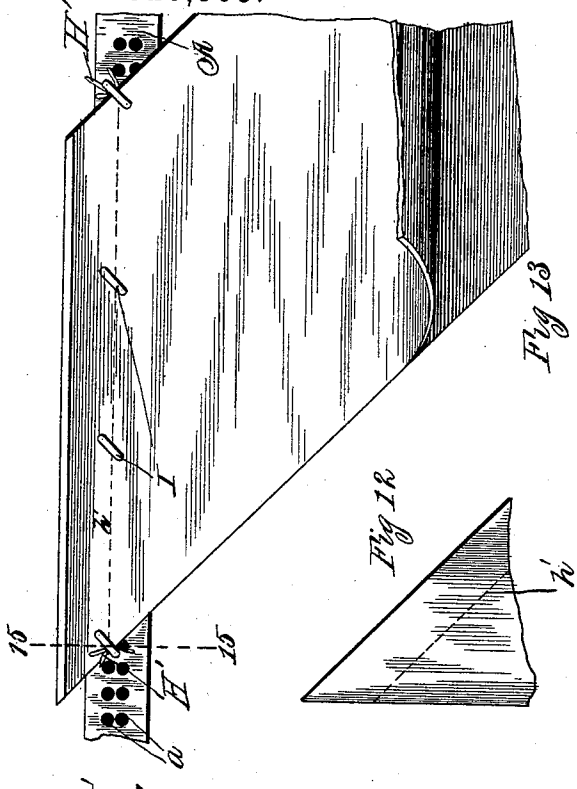

Fig 13

Fig 12

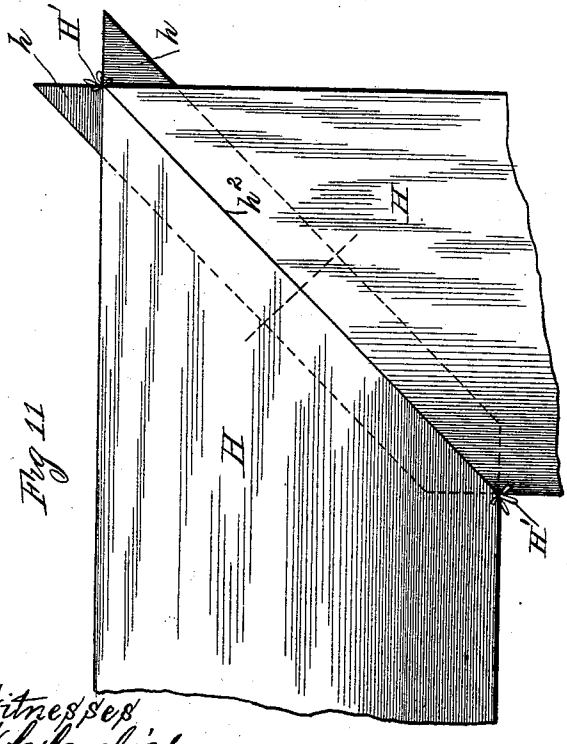

Fig 11

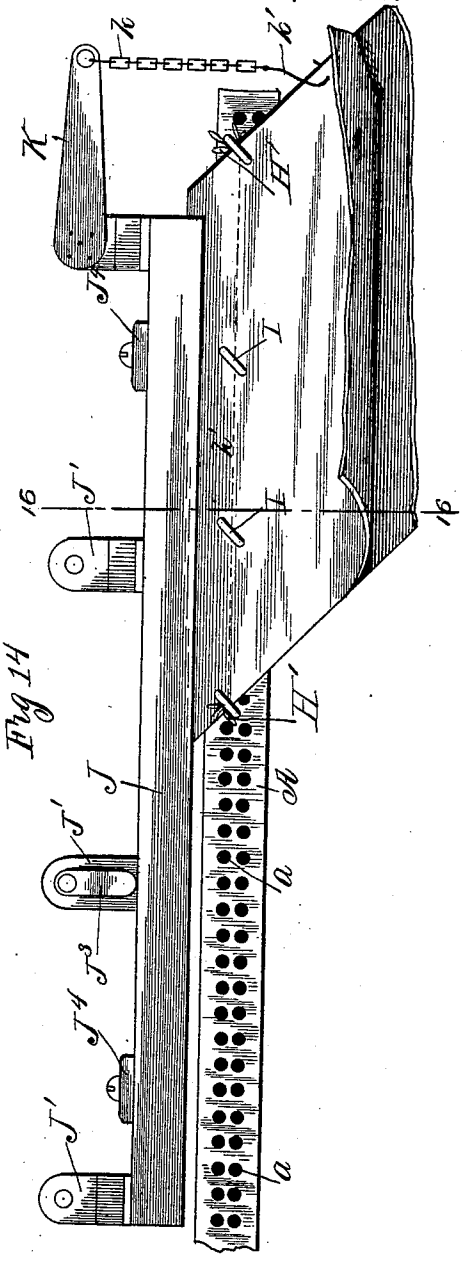

Fig 14

Witnesses
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F. AMES.

APPARATUS FOR SEWING CARPET CORNERS.

No. 520,909. Patented June 5, 1894.

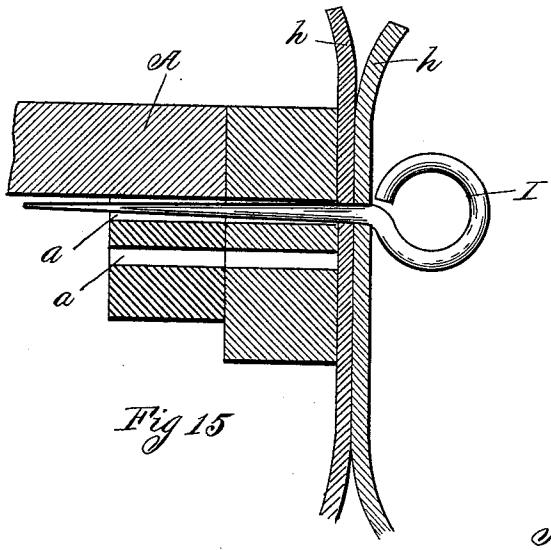


Fig 15

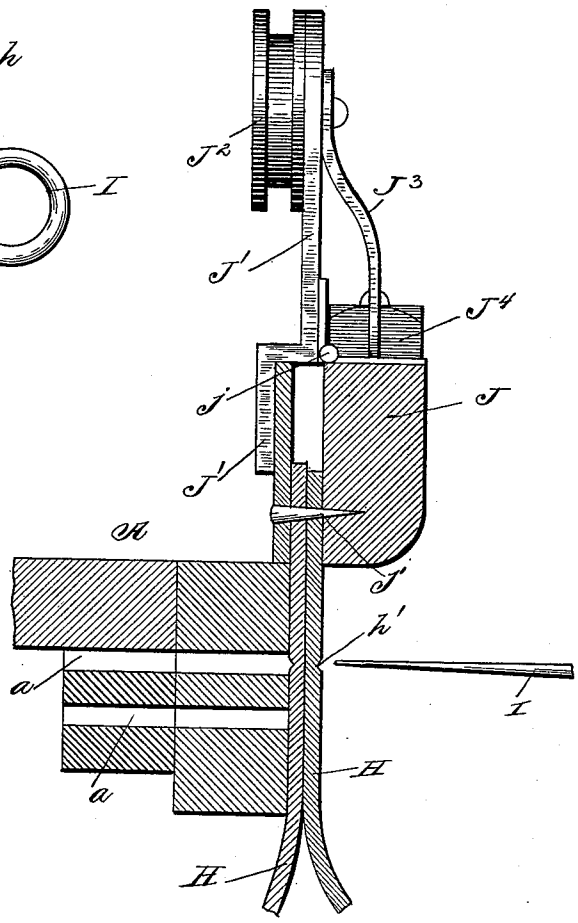
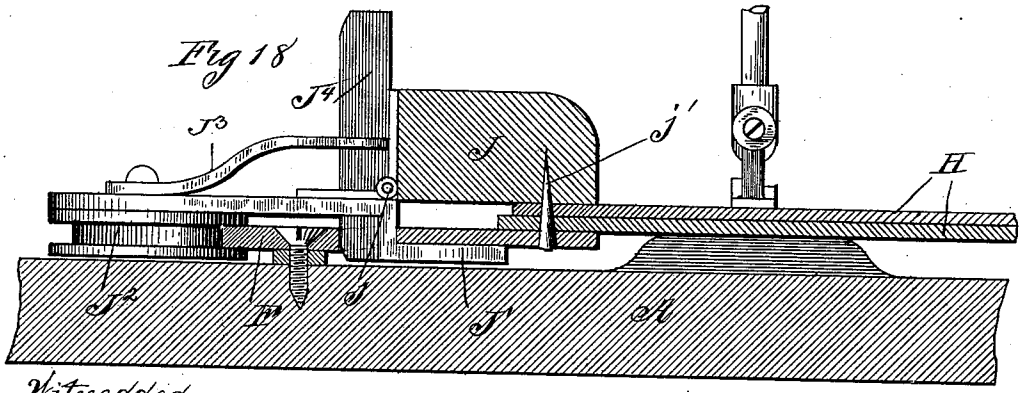


Fig 16

Fig 18



Witnesses.
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(No Model.) 6 Sheets—Sheet 5.

F. AMES.

APPARATUS FOR SEWING CARPET CORNERS.

No. 520,909. Patented June 5, 1894.

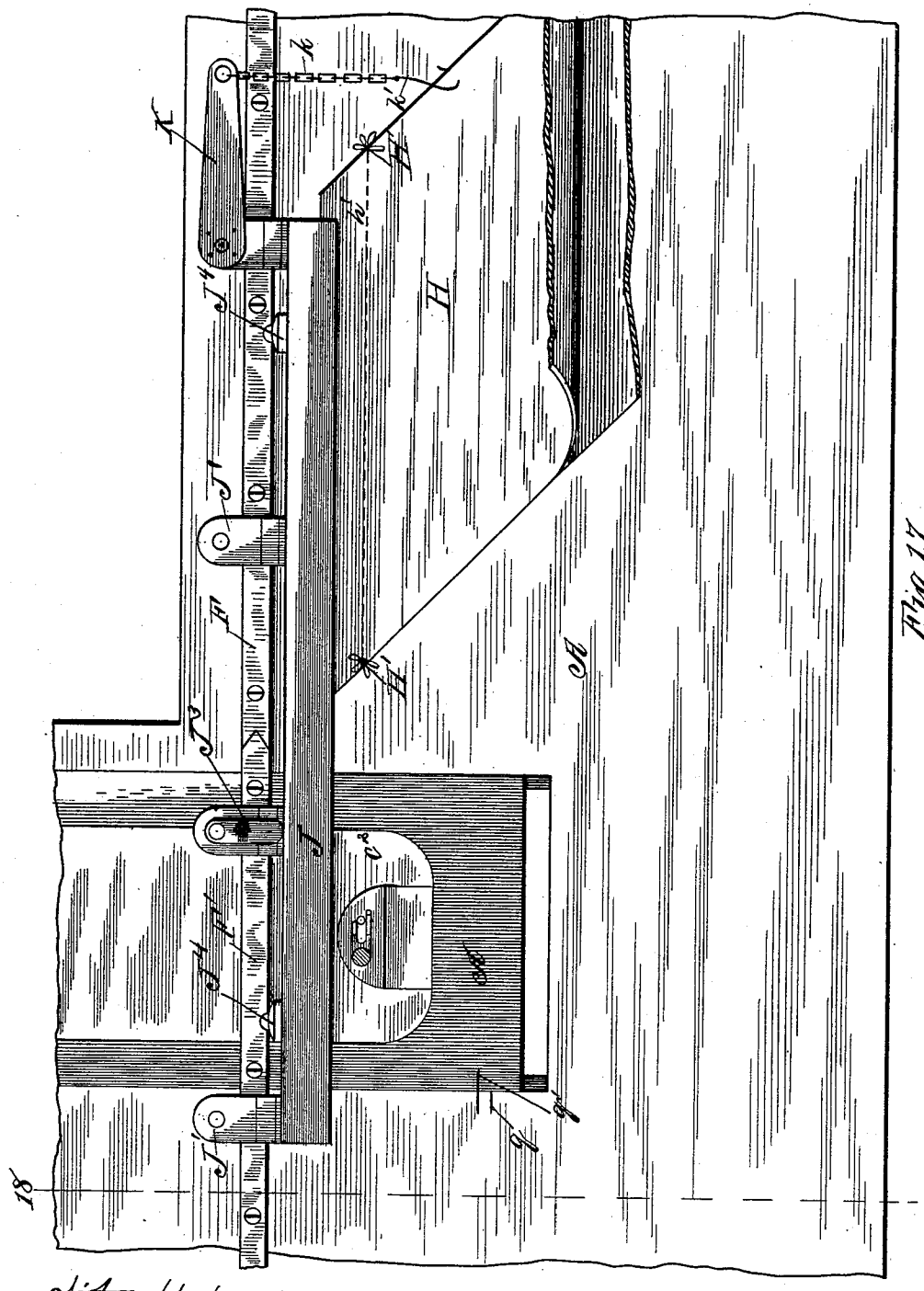

Fig. 17.

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F. AMES.

APPARATUS FOR SEWING CARPET CORNERS.

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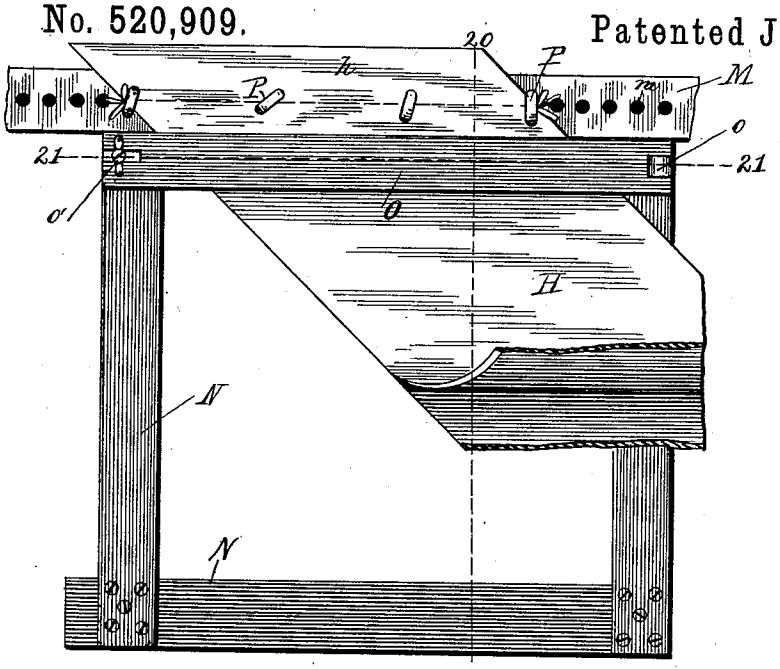

Fig 19

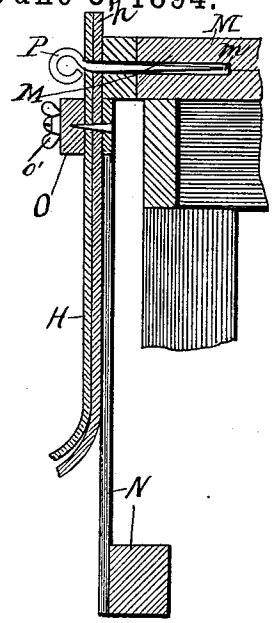

Fig 20

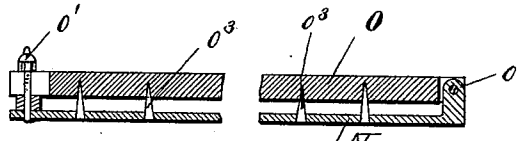

Fig 21

Fig 22

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UNITED STATES PATENT OFFICE.

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APPARATUS FOR SEWING CARPET-CORNERS.

SPECIFICATION forming part of Letters Patent No. 520,909, dated June 5, 1894.

Application filed November 15, 1890. Serial No. 371,599. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN AMES, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Apparatus for Sewing Carpet-Corners, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a carpet-sewing apparatus constructed in accordance with my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a transverse vertical section of the same, on the line 3—3, of Fig. 1. Fig. 4 is a detached view, inside elevation, of the clamp employed in connection with the apparatus shown in Figs. 1, 2, and 3. Fig. 5 is an edge view of the clamp shown in Fig. 4. Fig. 6 is a cross-sectional view of the clamp shown in Figs. 4 and 5, on the line 6—6, of Fig. 4. Fig. 7 is a detached view of one of the pins employed to temporarily secure the border to the side of the table. Fig. 8 is a plan view of a portion of the sectional track employed in the structure shown in Figs. 1, 2, and 3. Fig. 9 is a cross-sectional view, on the line 9—9, of Fig. 8. Fig. 10 is a transverse vertical section, on the line 10—10, of Fig. 1. Fig. 11 is a plan view of the two ends of a border temporarily secured together previous to the sewing of the corner. Fig. 12 is a plan view of a portion of the border showing its crease. Fig. 13 is a side elevation of the border in position upon the side of the table, shown in Figs. 1, 2, and 3. Fig. 14 is a side elevation of the table and the clamp with the border held in readiness for the sewing operation. Fig. 15 is a vertical section on the line 15. 15 of Fig. 13; Fig. 16, a similar section on the line 16. 16 of Fig. 14. Fig. 17 is a plan view of the mechanism shown in the preceding figures, and illustrating the border in position for sewing. Fig. 18 is a transverse vertical section, on the line 18—18, of Fig. 17. Fig. 19 is a side elevation of a modified form of clamp employed for holding the border in position for sewing. Fig. 20 is a cross-sectional view on the line 20—20, of Fig. 19. Fig. 21 is a cross-sectional view, on the line 21—21, of Fig. 19. Fig. 22 is an end elevation of the mechanism with which the clamp shown in Fig. 19 is employed.

In the drawings Figs. 1, 2, and 3, are upon one scale; Figs. 4 to 14 inclusive, and Figs. 17, 19, and 22 are upon a single scale enlarged from the former; and Figs. 15, 16 and 18 are upon a single scale still further enlarged.

Previous to my present invention it has always been necessary to sew the corners of carpet borders by hand, and thus the cost of the carpet has been greatly increased. The object of my invention is to provide mechanism for sewing the corners of carpet borders and thus dispense with hand work, and at the same time decrease the expensiveness of the carpet.

To the above purpose my invention consists in certain peculiar and novel features of construction and arrangement, as hereinafter described and claimed.

In the said drawings, A, in Figs. 1, 2, and 3, designates a table which is of L-shape, and upon one end of which is placed an electric motor, B, which is of any suitable or preferred type adapted to this class of work. The said motor is preferably mounted upon a vertical standard, B′, rising from the table A and elevating the motor out of the way of the border while the latter is being sewed upon the table A, and adjacent to the motor-standard B′ is mounted a sewing machine, C, which is of any type suitable to this heavy class of work. The power-shaft, *c*, of the sewing machine is driven by a belt, D, which runs over a pulley, *c′*, upon the power-shaft *c* of the sewing machine, and also over a pulley, *b′* upon the power-shaft *b* of the motor B. The current is applied to and shut off from the motor by means of a treadle, E, pivoted beneath the machine and connected by a rod, *e*, to a switch-lever, *e′* of a suitable rheostat inclosed within a box, E, secured beneath the top of the table A. One side of the table A is formed with a number of recesses, *a*, which are arranged in two rows extending horizontally one above the other. Upon the top of the table is also placed a track or rail, F, which extends longitudinally of the table over the bed plate of the sewing machine. The track F is provided with a removable section, F′, which extends transversely over the bed-plate, c^2, of the sewing machine, and this bed-plate rests upon a slide, A′, which is tongued into the top of the table A, as indi-

cated in Fig. 10, so as to permit of movement of the slide transversely of the table A. This movement of the slide is accomplished by manipulations of a hand-lever, G, pivoted at one end to the top of the table A, and connected by a pin, g, to the said slide A′. The movements of the slide A′ are made to accord with the distance between the two rows of recesses a, and this adjustment is determined by two gage-marks, q, upon the table A, and a gage-mark, q', upon the slide A′.

Previous to the sewing of the border, the ends of the same are turned under, as indicated at h in Fig. 11, so as to form a crease as indicated at h' in Fig. 12, the said crease extending obliquely of the border so as to form a miter-seam as indicated at h^2 in Fig. 11. The ends of the border pieces, H, are attached together, at each extremity of the seam by a short piece of cord, H′, which is suitably knotted. These cords thus retain the border-pieces in proper position for sewing. The border pieces are now laid over upon each other, so as to expose the edges h, and the creases h' serve as guides for the sewing, or, in other words, the needle of the sewing machine follows the creases h', so as to properly unite the ends of the border pieces. After the border pieces H have been folded over upon each other, as above described, the border is placed against that edge of the table which is provided with the apertures a, and according as the edges h are of greater or less width (or are what as is known as "long cuts" or "short cuts") pins, I, are placed either in the upper or lower sets of holes a, so as to cause the edges h to protrude above the top of the table A. The protruding edges, h, of the border pieces are now grasped by a suitable clamp. This clamp consists of a hinged or swinging bar, J, and a fixed bar or member, J′, the former being connected to the latter by hinges, j. The bar, J, has a smooth face, but the fixed bar, J′, is provided with a number of teeth, j', which pass through the projecting edges, h, of the border and enter recesses or holes in the hinged bar, J, as the latter is closed upon the former. The fixed bar, J′, is also constructed with several extensions outward at one edge, which are practically arms projecting outwardly from the body of the bar, each of which carries a roller, J^2, which is journaled to the outer or under side of the extension arm. A stop-arm, J^3, is also pivoted at one end to the outer end of each of these extensions of the clamp-bar, J′, and after the hinged clamp-bar has been closed down upon the edges of the border pieces, as above described, these arms, J^3, are swung inward, and when turned into a position about perpendicular to the hinged clamp-bar their free ends will abut against the back edge of this bar, as seen in Figs. 14 and 17, thereby fastening the hinged bar in place and so insuring the retention of the edges of the border pieces between the two members of the clamp. A long rectangular button, J^4, is also pivoted to the back edge of the hinged clamp-bar, as seen in Figs. 14 and 17, in which the heads of the pivots are seen, and these buttons may, of course, be turned on their pivots. After the border-pieces have thus been secured by the clamp, the latter, which has thus far been in upright position, as shown in Fig. 16, is laid back horizontally upon the table A, as shown in Fig. 18, so that the track F shall extend between the roller J^2 and the pivoted buttons, J^4, on the back edge of the hinged clamp-bar, J, which buttons have been turned on their pivots into a position transverse of the said clamp-bar, as seen in Fig. 18. When the clamp is not adjusted in this position for work, the buttons, J^4, are turned so as to lie lengthwise of the said clamp-bar, as seen in Fig. 16. The sewing machine is now moved, by means of the lever G, so as to bring the needle over the creases h', and the border is moved along by hand as the sewing progresses. In order to prevent any variation of the sewing from the line prescribed by the creases h', and which might result from the dragging of the body of the carpet, I mount upon one end of the clamp an arm, K, to the outer end of which is attached a chain, k, or a similar flexible device, and to the opposite extremity of this device I attach a hook, k', which is inserted into the body of the carpet. Thus the carpet is caused to move in the proper direction beneath the needle of the machine, so that the line of stitches shall accurately follow the creases h', by preventing any drag at this end.

In Figs. 19 to 22 I have shown a modified structure wherein the border is held stationary while the sewing machine travels along the creases h' to sew the miter seams. In this arrangement I mount the sewing machine C (which is, as before, of any type suitable to this heavy class of work) upon a table, L, which is supported on a number of carrying-wheels, l, one of which is partially shown in Fig. 22. The tires of these wheels are grooved to run upon suitable tracks which extend parallel with the front of a work-table, M, the structure being similar to that shown and described in my Patent No. 454,404, dated June 16, 1891. In this instance a single row of recesses, m, are formed in the front edge of the table M, and a rectangular clamping-frame, N, is employed to hold the carpet-border H in proper position for the sewing of its miter-seams. A clamping bar, O, is hinged at one end to one corner of the frame N, as shown at o, and said bar is held in operative or clamping position by a suitable turn-button, o'. A number of pins or teeth, o^3, are formed on the upper side of the clamping-frame N and enter recesses in the under side of the clamping-bar O when the latter is in clamping position. The pins or teeth o^3 pass through the border H, and thus hold the frame in proper position while the miter-seam is being sewed. At first the clamping-frame is placed vertically against the front of the table M, and pins, P, are

passed through the edges of the border and into the recesses *m*. Subsequently the pins P are removed and the frame is placed flat upon the table M, so as to cause the creases to lie beneath the needle of the sewing machine in position for running the miter-seam.

From the above description it will be seen that in either form of the apparatus the miter-seams are accurately sewed, and that all hand-sewing of these seams is dispensed with.

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

1. In an apparatus for sewing corners of carpet borders, the table A provided with a track F running lengthwise along the top thereof, in combination with a clamp J J′ adapted to seize and retain the corner edges to be sewed and provided with rollers J^2 adapted to be applied to one edge of said track, and a sewing machine mounted on the table and arranged to stitch together the carpet corner edges as the clamp is moved along over the table and guided by the rail thereon, substantially as described.

2. In an apparatus for sewing corners of carpet borders, the table A, in combination with a guide track F mounted on the table top and a clamp J J′ adapted to seize and hold together the carpet edges and constructed with angular extensions at the back edge of J′ and rollers J^2, mounted on the clamp and arranged to embrace said track between them and the said clamp, substantially as described.

3. The table A, in combination with the clamp movable thereon and adapted to clamp together the edges of the carpet corners, the arm K attached to said clamp and the chain *k* provided with a hook, whereby the rear portion of the carpet may be suspended to prevent displacement by dragging, substantially as described.

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