

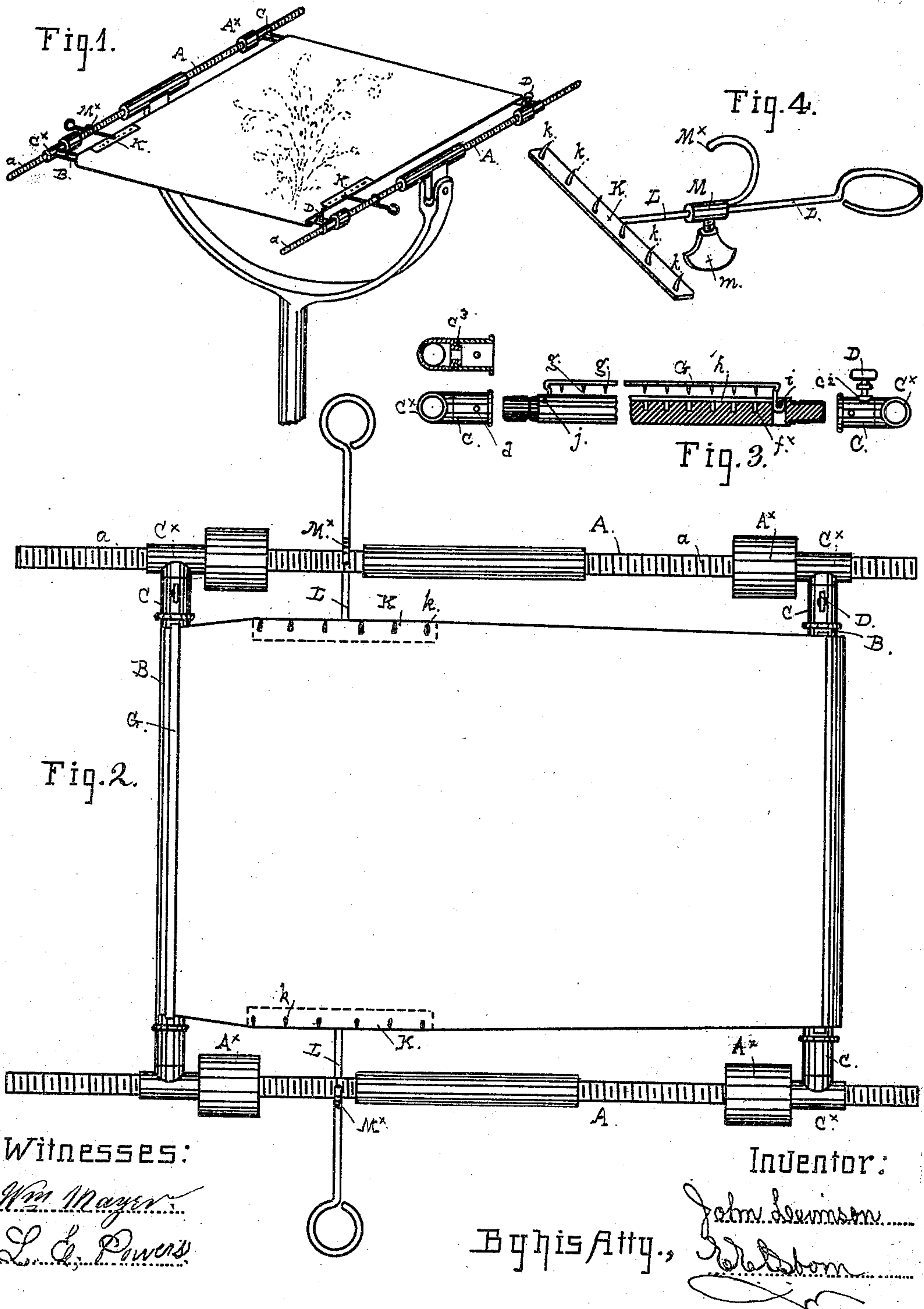
(No Model.)

2 Sheets—Sheet 1.

J. LEVINSON.  
EMBROIDERY FRAME.

No. 335,762.

Patented Feb. 9, 1886.



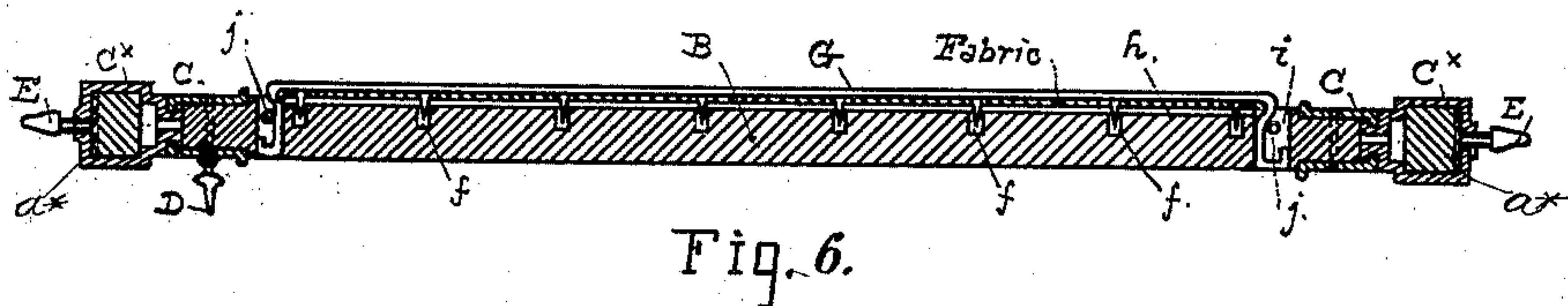
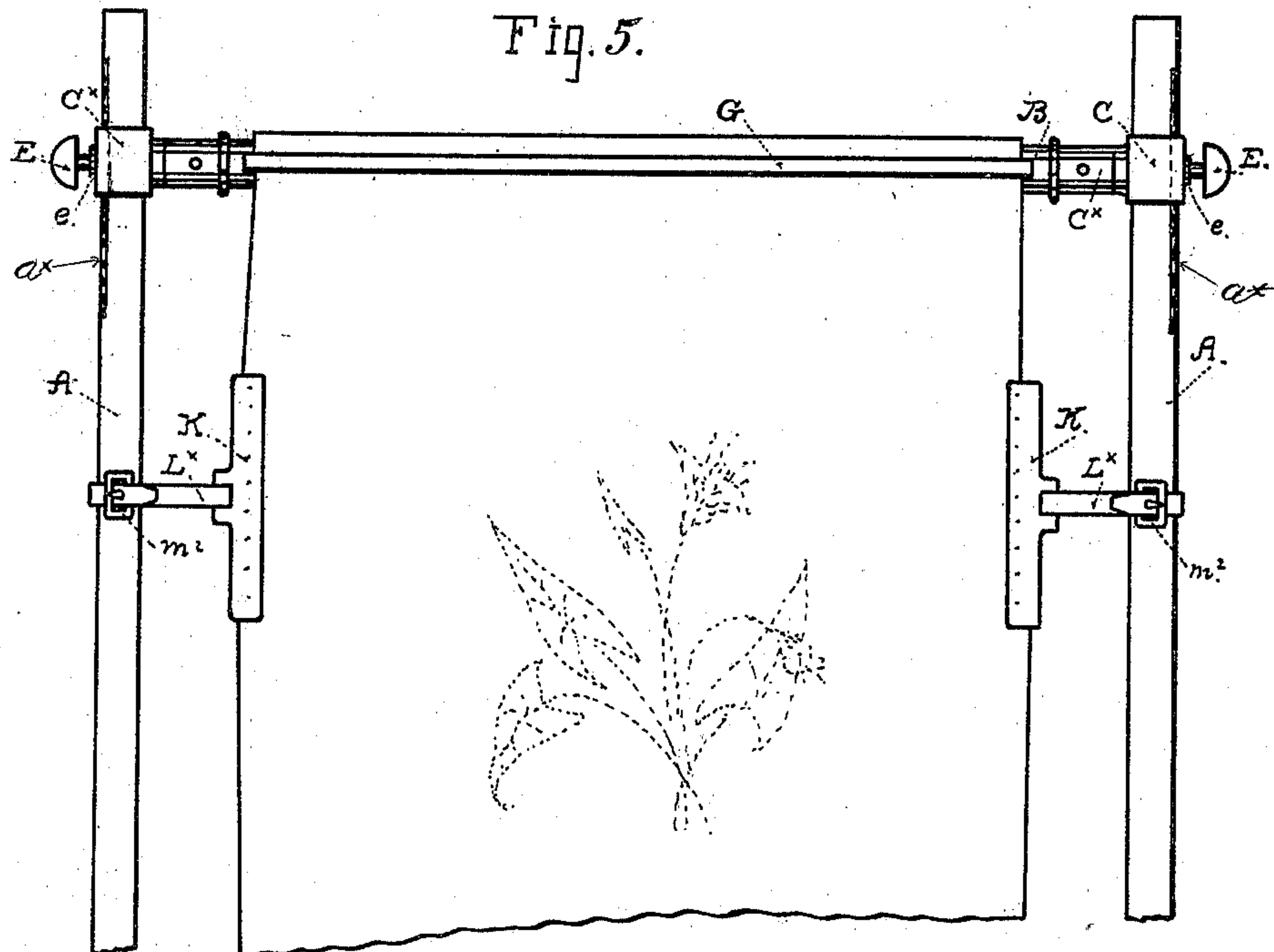
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Witnesses:

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*Geo. B. Taggard*

Inventor:

By his Atty.,

*John Levinson*  
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# UNITED STATES PATENT OFFICE.

JOHN LEVINSON, OF SAN FRANCISCO, CALIFORNIA.

## EMBROIDERY-FRAME.

SPECIFICATION forming part of Letters Patent No. 335,762, dated February 9, 1886.

Application filed July 22, 1885. Serial No. 172,297. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN LEVINSON, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Embroidery-Frames; and I do hereby declare that the following is a full, clear, and exact description of my said invention, reference being had to the accompanying  
10 drawings.

My invention relates to improvements made in frames for stretching and holding embroidery-work, and for use in those operations wherein fabrics of various kinds require to be  
15 held with a smooth surface and more or less tension for embroidering and stitching. Devices of this kind are now generally known as "embroidery-frames," and as "quilting-frames," and my improvements in respect of  
20 the same consist in certain novel construction and combination of parts, as hereinafter set forth and claimed.

The nature of these improvements and the manner in which I proceed to construct, combine, and use the same are fully explained in the following description, the accompanying  
25 drawings being referred to by figures and letters.

Figure 1 is a view in perspective of the  
30 frame set in a supporting stand for convenience of the worker, the foot of the stand being broken away. Fig. 2 is a plan or top view of the frame, showing the material stretched, ready for work. Fig. 3 is a detail of the construction of sockets or bearings for the rollers,  
35 and of the clamps that grasp and hold the edges of the cloth or material. Figs. 4 and 5 show the construction of the stretcher-plate that is applied to the sides of the material to  
40 secure lateral strain and tension. Fig. 6 is a modification in which a smooth, instead of a threaded, bar is used for the sides of the frame, and the sliding sockets for the rollers are held at any point along the bars by set-screws.

45 The modifications apply more particularly to the smaller and lighter kinds of frames, intended for use without a stand.

The side bars of the frame may be of the construction already in use, in which a portion of the rod that forms a bar is cut with a  
50 coarse thread,  $a$ , from each end toward the

middle, and for a greater portion of the length, on which threaded parts there are nuts  $A^x$ , that by being moved outward are caused to press against the sockets C and hold apart the  
55 end bars, B. Instead of these round threaded rods and the straining-nuts on them, however, I also use smooth bars of uniform thickness, and of rectangular shape in cross-section, as shown in Figs. 5 and 6. The end bars, B, are  
60 cylindrical rods with the ends set to turn in tubular sockets C C, that have sleeves or tubular portions  $C^x$ , to take over and slide along the side bars, A, and the two sets of rods A and B being joined together by these socket-  
65 pieces, they form a rectangular frame, of which the end bars are rollers.

Figs. 2 and 3 illustrate a construction of the sliding socket suitable for cylindrical side bars, where the slide to run on the bar is connected  
70 to the socket C by a swivel-joint,  $c^3$ , and the two stand at a right angle. The ends of the rollers are turned off smaller than the body, and are covered with ferrules fitted to the socket C, to turn freely in them, but also con-  
75 fined by stop-pins that take through the sockets from the outside onto a groove in the ferrule, or behind a shoulder on the ferrule. Any other construction that will secure the ends of the roller in the sockets and still afford free  
80 rotation of the roller for winding up or letting off the material can be substituted for that here shown.

In the part C is a set-screw, D, working through a threaded socket,  $C^2$ , against the  
85 roller within the socket, and exerting sufficient pressure, when turned down, to bind and hold the roller. One set-screw is considered sufficient to hold each roller; but the same means may be employed at both ends of  
90 the roller, if found necessary. The same construction is followed in the sliding socket-pieces for the rectangular bars, (shown in Figs. 5 and 6,) with the addition to the slides  
95  $C^x$  of set-screws E, working through threaded sockets  $e$  and against the outer face of the bar. This face is protected by a wearing-plate,  $a^x$ , of metal, to take the pressure of the screws.

Each roller is furnished with a clamp, to  
100 seize and confine the edge of the material with a firm grip at all points along the edge for the



full length. The construction and operation of this device is shown in Figs. 2 and 3, where G is a narrow plate or thin bar of metal furnished on the under side with a number of  
 5 short pins or teeth,  $g$ , of uniform size, set at intervals from end to end, and with suitable projections to penetrate and pass through the thickest character of material that would ever be stretched in the frame. A slot,  $h$ , is cut in  
 10 the face of the roller to let in the plate flush with the surface, and in the bottom of this slot are cavities or recesses  $f^x$ , for the teeth  $g$ . The transverse slots  $i$  are cut through the roller, as the ends of the slot  $g$  and the ends of  
 15 the clamp-plate being bent down at right angles are passed through the slots and then bent or upset to keep the plate from being separated from the roller, but yet to afford sufficient movement of the bar for admitting  
 20 the material between them. The pins  $j$  are fixed across the slots  $i$  to stop the ends of the plate. This fastening of the plate to the roller is not necessary to its working, however, and it may be dispensed with.

25 The device shown in Fig. 4 is provided for use in those cases and operations where it is desired to stretch the material laterally at points where the surface is being worked upon. It is formed of a plate, K, armed on one  
 30 side with short bent teeth or hooks  $k$ , and attached at the middle to the end of a rod, L, this connection being a pivoted instead of a rigid connection, so that the rod will always draw true, whether the plate is placed  
 35 directly parallel with the edge of the material or not. The tubular slide M to support this rod has a set-screw,  $m$ , to bind the rod, and is also provided with a hook or clasp,  $M^x$ , of suitable form to grasp the side bar, A, at any  
 40 point along its length. The outer end of the rod terminates in a handle, for convenience in drawing it outward. Two of these stretchers are used together, one on each side of the work, to draw in opposite directions, and as  
 45 the work changes from place to place along the surface they are shifted along the bars.

Figs. 1 and 2 show the application of the stretchers in this manner. A modification is also shown in Fig. 5, where a strap,  $L^x$ , with a lever-buckle,  $m^2$ , is employed in place of the  
 50 rigid rod.

Any degree of tension may be obtained upon the material by the joint action of the winding-rollers and the stretcher-plates, and the frame can be adjusted for large or small  
 55 work by simply shifting the rollers.

The construction of threaded side bars and nuts for moving and setting the rollers, as shown in Figs. 1 and 2, is already in common use, and winding-rollers for quilting-frames  
 60 and other frames of the kind are also well known. I therefore disclaim the same as being new and original parts and features of this invention.

I am also aware that a divided side bar or  
 65 roller with holding pins or projections on one portion and holes on the other, with slip-rings for sliding over the two parts and holding them together, is well known, and I do not  
 70 claim such.

I claim, however, as my invention, and desire to secure by Letters Patent, according to the foregoing full description thereof—

1. The revoluble end rollers, B, having the longitudinal groove  $h$ , with bottom holes,  $f^x$ ,  
 75 and the transverse openings  $i$  at the ends of groove, and the clamping-bar G, having the points  $g$  and the turned-down ends to extend into and be engaged by stops in openings  $i$ , all constructed and combined, as and for the  
 80 purpose set forth.

2. The combination of the stretcher-plate K, having hooks  $k$ , and the attached rod L, and sliding socket M, with set-screw  $m$ , and clasp  $M^x$ , as a means for attaching the stretcher  
 85 to the side bars, as a fixed point from which to draw the stretcher-plate, and for holding the plate when set, substantially as described.

JOHN LEVINSON. [L. S.]

Witnesses:

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