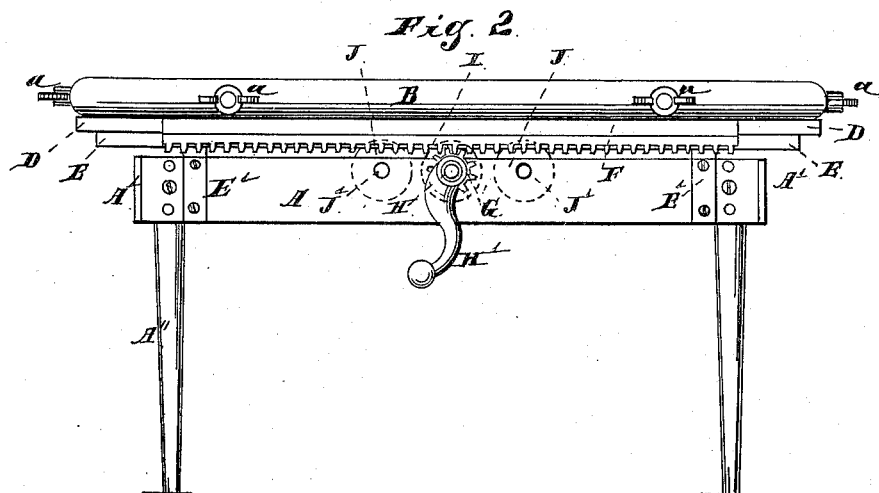
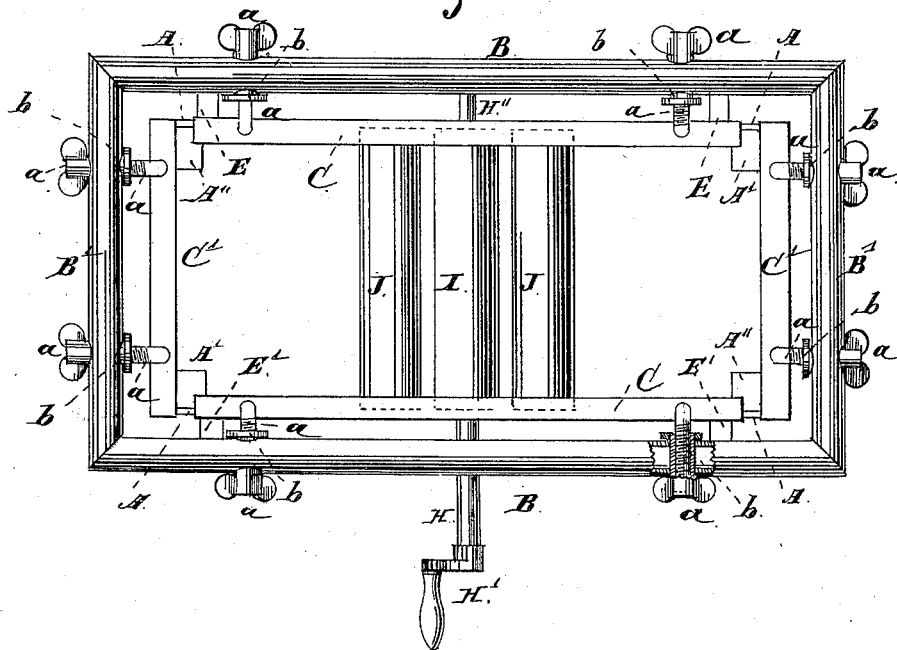


H. H. HOGE.

MACHINE FOR STRETCHING AND SMOOTHING EMBROIDERED AND
OTHER FABRICS.

No. 344,577.

Fig. 1. Patented June 29, 1886.



Witnesses:
Albert H. Adams.
Harry T. Jones.

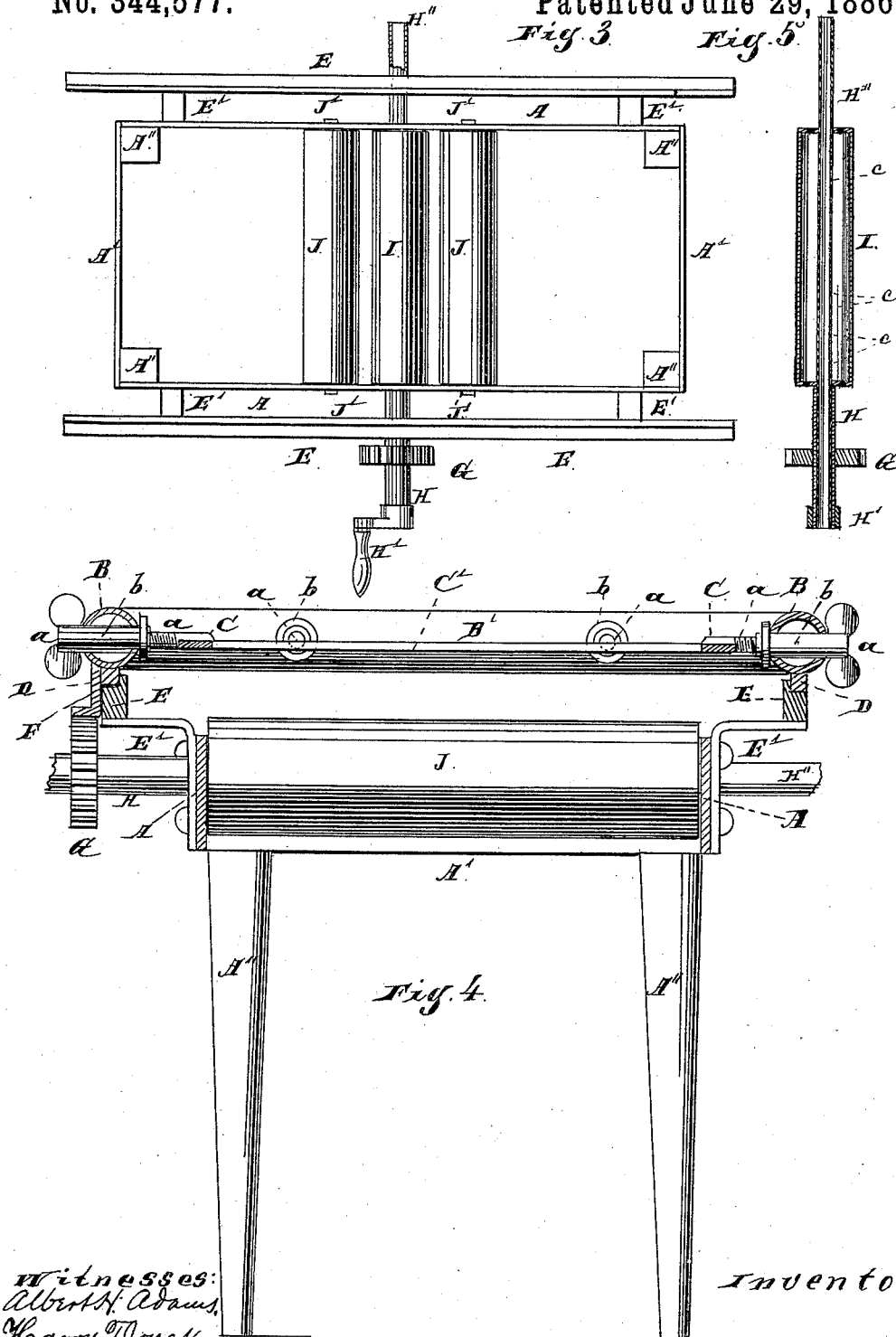
Inventor:
Harriet H. Hoge.

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UNITED STATES PATENT OFFICE.

HARRIET H. HOGE, OF BUTTE CITY, MONTANA TERRITORY.

MACHINE FOR STRETCHING AND SMOOTHING EMBROIDERED AND OTHER FABRICS.

SPECIFICATION forming part of Letters Patent No. 344,577, dated June 29, 1886.

Application filed July 10, 1885. Serial No. 171,230. (No model.)

To all whom it may concern:

Be it known that I, HARRIET H. HOGE, residing at Butte City, in the county of Deer Lodge and Territory of Montana, and a citizen of the United States, have invented a new and useful Improvement in Machines for Stretching and Smoothing Embroidered and other Fabrics, of which the following is a full description, reference being had to the accompanying drawings, in which--

Figure 1 is a top or plan view; Fig. 2, a side elevation; Fig. 3, a plan view with the carrying-frame removed; Fig. 4, a cross-section enlarged; Fig. 5, a detail in section of the heating-roller.

It is well known that in working embroidery the embroidered portion and the material embroidered become more or less wrinkled and kinked from the drawing of the embroidery-stitches and the draw of the material being embroidered, and it is necessary, in order to have the embroidered article presentable, to remove the wrinkles and kinks, and this has heretofore been done by the use of manual labor; but this process requires considerable labor, and is not wholly effectual in producing the end sought.

The object of this invention is to construct a machine on which embroidered articles—curtains, and other fabrics which require stretching and smoothing, in order to produce a finished appearance—can be successfully and easily operated upon; and its nature consists in the several parts and combinations of parts hereinafter described, and pointed out in the claims as new, for attaining the objects sought.

In the drawings, A represents the side pieces, A' the end pieces and A'', legs, forming a frame on which is mounted the frame carrying the embroidery, curtain, or other article, which frame is to be of the required length and width for the size of carrying-frame.

B represents the side pieces, and B' the end pieces, of the carrying-frame for the embroidery, &c., which frame may be made of light tubing metal, wood, or any other suitable material.

C represents pieces running parallel with the side pieces, B, of the carrying-frame, on the inside of such side pieces.

C' represents end pieces running parallel

with the end pieces, B', and located on the inside of such end pieces. The side pieces and the end pieces, C C', are connected to their respective side pieces, B, and end pieces, B', of the carrying-frame by screws *a*, the stems of which pass through nuts *b* in the side and end pieces, B B', as shown in Fig. 1, and by means of these screws *a* and nuts *b* the pieces C C' can be moved in or out in a positive manner, to increase or decrease the space covered by the pieces C C', the pieces, in fact, forming a movable or adjustable frame.

D represents guide-strips, one located on the under side of each side bar B.

E represents guides, one for each side of the machine, and each supported by arms or brackets E', running up from the side pieces, A, and each guide is located in such relation to the frame pieces B as to receive and support the guide-strips D.

F is a rack attached to one of the guide-strips D.

G is a pinion or gear meshing with the rack F.

H is a sleeve or collar to which is secured the pinion G. This sleeve is mounted on a tube, H'', supported stationary in the side pieces, A, and at one end, as shown, is provided a crank, H', by which the sleeve can be revolved to revolve the wheel G and move the rack F back and forth, which gives a reciprocating movement to the supporting-frame B B'. The hollow tube H'' is coupled or otherwise connected at one end to a pipe leading to a reservoir of gasoline or other burning vapor, and the pipe or tube H'' is provided with a series of openings, *c*, through which the vapor can pass to be ignited to produce a flame.

I is a roller attached to the sleeve H, and mounted on the tube H'', to come within the frame-pieces A. This roller or cylinder I has open ends for the admission of air to supply the necessary oxygen to feed the flame of the pipe or tube H'', and the openings *c* in this tube H'' come within the cylinder I, as shown in Fig. 5, so as to heat the cylinder and confine the flame within the cylinder, so that no smoke or non-combustible product can escape that would injure the fabric being acted upon.

J represents rollers or cylinders, each mounted on a shaft, J', supported in suitable bearings in the side pieces, A, a cylinder being lo-

cated on each side of the cylinder I, and, as shown, in proximity thereto. These cylinders and the cylinder I, as shown, are located in the same plane, and are below the frame formed by the side pieces, C, and end pieces, C'.

The operation is as follows: A fabric to be operated upon is attached by stitching or otherwise to the side pieces, C, and end pieces, C', and by turning the screws *a* such fabric is drawn somewhat taut at first. The roller I is heated from the tube H', and over this roller and the rollers J is passed a piece of wet material—such as a towel or piece of cloth. The handle is turned to cause the pinion G, through the rock F, to reciprocate the frame B B', and such reciprocation carries with it the frame C C' and the fabric attached thereto, and as the sleeve H is turned with the turning of the handle H' the roller or cylinder I is likewise turned, and such turning of the roller I carries around the piece of wet material, bringing the surface of such wet material in contact with the heated surface of the roller or cylinder, producing steam, which arises and comes in contact with the fabric on the frame C C'; and when such fabric has been steamed to the required degree the wet material over the rollers I J is removed, which permits the heat from the roller I to strike the fabric carried by the frame C C', and dry such fabric; but before the drying effect is had the fabric, which has become damp from the steaming process, is stretched by drawing out the side bars, C, and end bars, C', through the screws *a* sufficiently to take out all the wrinkles, kinks, and other defects, and the drying process is continued until the fabric is thoroughly dry, when it is unstitched and removed from the carrying-frame; and when removed it will be found to have all the wrinkles and kinks and unevenness removed therefrom and present a finished appearance, and it will be noticed that the draw on the fabric is uniform, both longitudinally and sidewise through the mov-

able pieces C C'; and it will also be seen that in the event one corner or portion of the fabric is to be drawn to a greater extent than the rest, it can be done by drawing the two corner screws or the one or more screws required to produce such increased draw.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination of a supporting-frame and the rollers I and J, carried thereby, with a reciprocating frame comprising side and end bars, and adjustable stretching devices arranged about said side and end bars for stretching a fabric both lengthwise and sidewise, substantially as described.

2. The combination of a supporting-frame and steaming and drying devices, substantially as described, carried thereby, with a reciprocating frame comprising the outer side, and end bars, B B', the inner side and end bars, C C', and screws adjustably connecting the inner with the outer side and end bars, substantially as described.

3. The combination of a supporting-frame, steaming and drying rollers on the frame, a frame reciprocating above the said rollers, and stretching-bars C C' on the reciprocating frame, substantially as described.

4. The combination, with a supporting-frame, of a reciprocating frame comprising the outer side and end bars, B B', and the inner side and end bars, C C', the set-screws *a*, connecting the outer with the inner side and end bars, and steaming and drying rollers, substantially as described.

5. The frame B B' C C', guide-strips D, guides E, and rack F, in combination with the pinion G, tube H', sleeve H, crank H', and roller I, substantially as and for the purpose specified.

HARRIET H. HOGE.

Witnesses:

ALBERT H. ADAMS,
HARRY T. JONES.