

H. C. LUDWIG.

EMBROIDERING FRAME AND STAND.

No. 383,533.

Patented May 29, 1888.

Fig: 1.

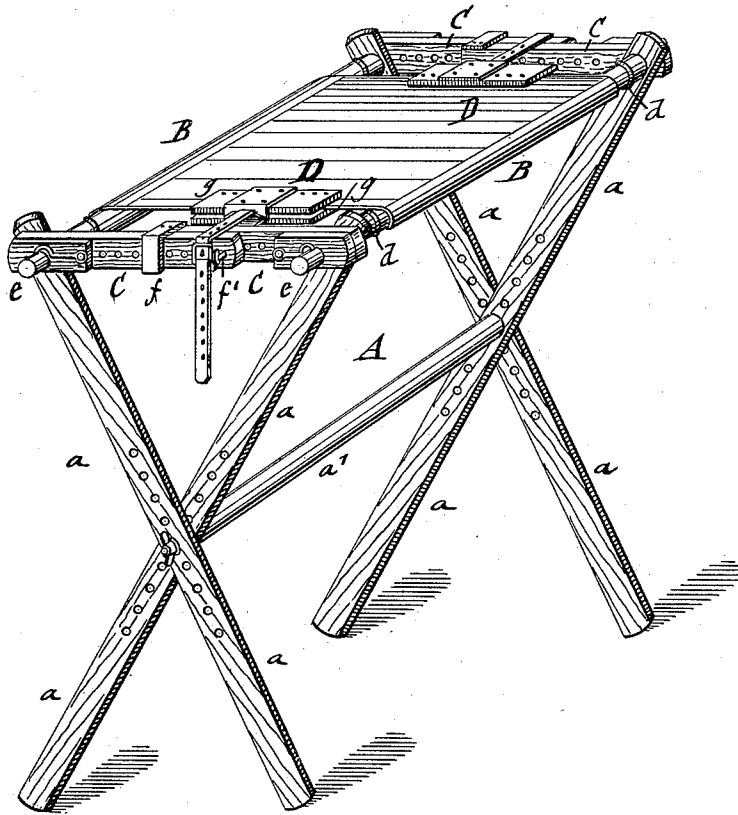


Fig: 2.

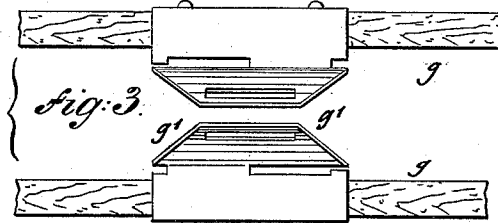
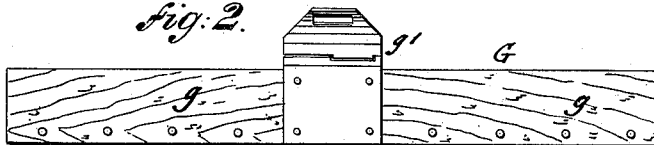
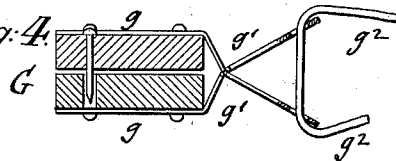


Fig: 4.



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Fig. 5.

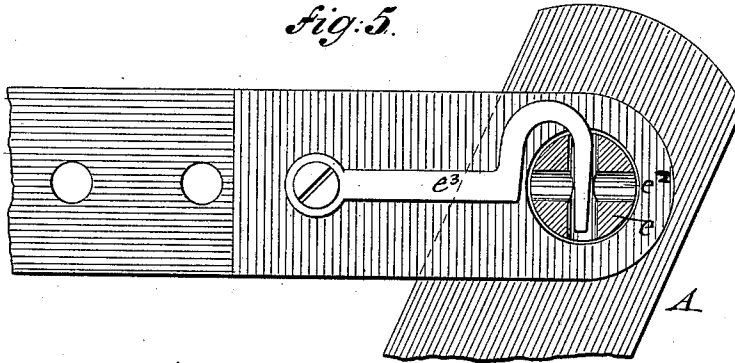


Fig. 7.

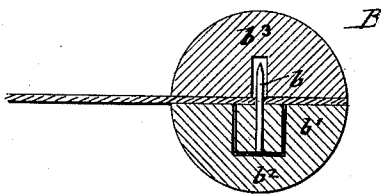


Fig. 6.

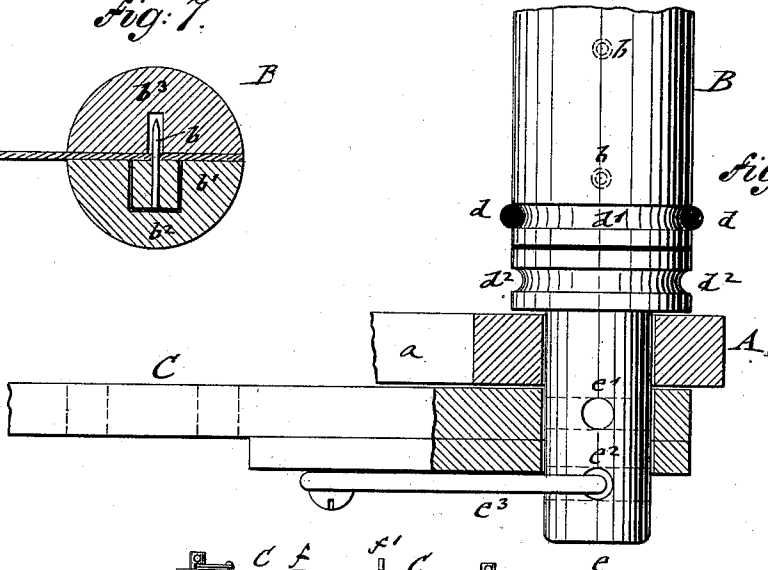
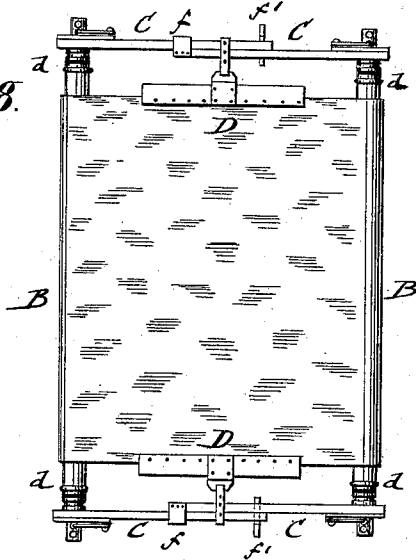


Fig. 8.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

HERMANN C. LUDWIG, OF NEW YORK, N. Y.

## EMBROIDERING FRAME AND STAND.

SPECIFICATION forming part of Letters Patent No. 383,533, dated May 29, 1888.

Application filed March 3, 1887. Serial No. 229,532. (No model.)

*To all whom it may concern:*

Be it known that I, HERMANN C. LUDWIG, of the city, county, and State of New York, have invented certain new and useful Improvements in Embroidering Frames and Stands, of which the following is a specification.

This invention relates to an embroidery-frame which may be used on an adjustable stand, or separately therefrom, according to the size and nature of the work.

In the accompanying drawings, Figure 1 represents a perspective view of my improved embroidering-frame. Figs. 2, 3, and 4 are details of one of the stretching-clamps for laterally stretching the fabric on the frame. Figs. 5 and 6 are details, drawn on a larger scale, showing the connection of one of the stretching-rollers with the extension-braces and supporting-stand. Fig. 7 is a vertical transverse section of one of the stretching-rollers, and Fig. 8 is a plan of my improved embroidering-frame.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the supporting-stand of my improved embroidering-frame, which stand is composed of two pairs of intercrossing legs, *a a*, which are provided with a number of holes, through which the pivot ends of a transverse connecting-rod, *a'*, are passed, each pair of legs being clamped thereto by washers and thumb-nuts, so as to be firmly held in position. By the holes arranged in the legs the supporting-frame may be set in different positions, as required by the size and inclination of the embroidering-frame supported by the same. At the upper ends of the legs *a a* are bearings for the end pivots of the stretching-rollers B B, each of which is composed of two parts, the lower half being provided with projecting pins *b*, that are secured to a longitudinal strip, *b'*, glued into a groove, *b''*, of the lower half, while the upper half of each roller is provided with socket-holes *b'''* for said pins, as shown in Fig. 7.

The fabric to be stretched on the frame is placed on the pins of the lower half of the rollers, and the upper half of the rollers placed over the fabric and secured to the lower half by strong rubber rings *d*, that are seated in annular grooves *d'* of said sections, as shown

in Fig. 6. When it is desired to take the roller-sections apart, so as to detach the fabric or apply a new one, the rubber rings are removed from the roller-sections and placed into annular grooves *d''*, which grooves are formed in the solid end portions of the lower half of the rollers, as shown in Fig. 6.

The end pivots, *e*, of each stretching-roller B are provided with two sets of radial holes or perforations, *e'* *e''*, the outer set, *e''*, being engaged by a pivoted hook, *e'''*, or other suitable locking device of extension-braces C, when the stretching-rollers are adjusted on the supporting-stand A. The ends of the extension-braces C are applied to the end pivots, *e*, of the rollers B, and made of two perforated pieces which are guided alongside of each other by metallic keepers *f* and pins *f''* at the end of the pieces, as shown in Figs. 1 and 8. The second inner set of holes, *e'*, serves to lock the extension-braces C to the rollers B B when the latter are detached from the supporting-stand A, when it is preferred to use the frame without the stand—as, for instance, when the fabric to be embroidered is larger than the stand, or when it is not convenient to carry the frame.

The fabric to be embroidered is stretched on the rollers B B by means of the locking devices described, the embroidered portion of the fabric being gradually wound upon one roller while the unembroidered fabric is unwound from the other roller, as customary in embroidering-frames of this class. To impart also, a stretching action on the fabric in a lateral direction, so as to remove the puckerings imparted to the fabric by the longitudinal strain on the same, two stretching-clamps, D D, are employed, which are shown in detail in Figs. 2, 3, and 4, and which consist of two jaws, *g g*, of which one is provided with fixed pins, the other with holes for said pins, said jaws being connected by a lever-hinge, *g'*, the outer ends of which are slotted and applied to a leather strap, *g''*, that is passed around the extension side braces, C C, as shown in Figs. 1 and 8. For tightening the fabric the leather straps are adjusted and the jaws of the stretching-clamps tightly applied to the fabric, whereby the same is reliably stretched in lateral direction.

The peculiar construction of the lever-hinge employed is clearly shown in Figs. 2, 3, and 4, though I do not confine myself to this construction, as any other equivalent hinge construction of the jaws may be employed.

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

10 A stretching-roller for an embroidery-frame, the body of which is divided longitudinally into two semi-cylindrical sections, one of said sections having a longitudinal groove on its flat face and provided with a longitudinal

strip inserted in said groove, said strip having fixed pins, and the other semi-cylindrical section being provided with sockets for said pins, 15 substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

H. C. LUDWIG.

Witnesses:

MARTIN PETRY,  
CHARLES FLEISCHACKER.