

UNITED STATES PATENT OFFICE.

HERMANN C. LUDWIG, OF ELIZABETH, NEW JERSEY.

QUILTING-FRAME.

SPECIFICATION forming part of Letters Patent No. 302,748, dated July 29, 1884.

Application filed July 16, 1883. (No model.)

To all whom it may concern:

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

This invention relates to embroidering-frames, in which the piece to be embroidered is readily adjustable thereon without removal therefrom.

In the accompanying drawings, Figure 1 represents a perspective view of my improved embroidering-frame with the fabric attached. Fig. 2 is a top view of the same. Fig. 3 is a vertical transverse section; Fig. 4, an end view as folded up. Figs. 5 and 6 are details of the rollers and of the clamping device of the stretching arms or braces.

Similar letters of reference indicate the corresponding parts.

Referring to the drawings, A A' represent the adjustable legs of my improved embroidering-frame, two pairs of which are arranged and connected at their center by a transverse rod, *r*, so as to form a stand. The legs A A' of each pair cross each other about the middle, one of them being provided with a longitudinal slot, *a*, whereby one leg may be adjusted on the other leg. The rod *r* is provided near the ends with fixed washers *r'*, against which the legs are pressed by clamp-nuts *r''*, that are screwed on the exterior threaded ends of the rod *r*, as shown in Fig. 2. At the upper ends of the legs A A' are arranged bearings for two rollers, B B', which connect, respectively, the legs A A and A' A'. The bearings are preferably made of bent straps or bands *d*, of metal, that are fastened to the legs by means of screws. The rollers B B' are retained in the straps *d* by circumferential grooves near each end, said grooves having radial holes *d'* for receiving the stop-pins *d''*, which pass through holes in the straps *d*, so as to firmly lock the rollers in position. A strip, *e*, of suitable ribbon is attached to each roller B B', to which strips the fabric F, that is to be embroidered, is applied in any suitable manner, and then wound around one of the rollers by turning it with the hand and inserting the pins *d''*, when the fabric between the rollers B B'

is sufficiently tight. As the work progresses, the stop-pins *d''* are removed and the embroidered part of the fabric is wound up on the other roller, so that the next adjoining portion of the fabric F comes between the two rollers, after which the stop-pins *d''* are inserted again, and the work of embroidering is resumed. This is repeated until the entire piece is finished.

In order to give the fabric between the rollers sufficient tension, the same is stretched by means of arms S S', which are pivoted to the upper parts of the legs A A', respectively, to the inner and outer side of the legs, as shown in Fig. 3. One of the arms is provided with an adjustable slide-piece, *s''*, having a projecting tongue, *s'*, and a clamp-screw, *s''*, by which latter the slide-piece *s''* can be attached to any part of the arm S. The other arm, S', has its extremity slightly flattened. After the clamp-nuts *r''* are tightened and the pins *d''* inserted in their places, the fabric can be stretched by placing the arms S S' at an obtuse angle to each other, either upward or downward, as shown in dotted lines in Fig. 3. The slide-pieces *s''* are then moved on the arm S' until they abut against the ends of the arms S, in which position the tongues *s'* overlap the arms S. The clamp-screws *s''* are then tightened, and both arms S S' brought into line, as shown in full lines in Fig. 3, whereby the increasing of the distance between the upper parts of the legs A A' and the rollers B B' stretches the fabric tightly for embroidering.

The advantages of my improved embroidering-frame are that the piece to be embroidered is always tightly stretched, and the parts that are not worked upon protected against soiling as they are wound up on the rollers. The part that is worked upon at the time is folded up with the stand when the work is interrupted and instantly ready for work again in opening the stand.

The frame can be cheaply manufactured, and facilitates the embroidering, especially, of long pieces.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—
The combination, substantially as set forth, of pivoted crossing legs arranged in pairs and provided with bearings at their upper ends,

means for connecting the legs of each pair,
rollers for winding the fabric, supported in
the bearings of the legs, means for locking said
rollers, and means for stretching the fabric,
5 consisting of inwardly-projecting arms piv-
oted to the legs, adjustable slide-pieces con-
necting the meeting ends of said arms, and
set-screws for clamping the same.

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

HERMANN C. LUDWIG.

Witnesses:

PAUL GOEPEL,
SIDNEY MANN.