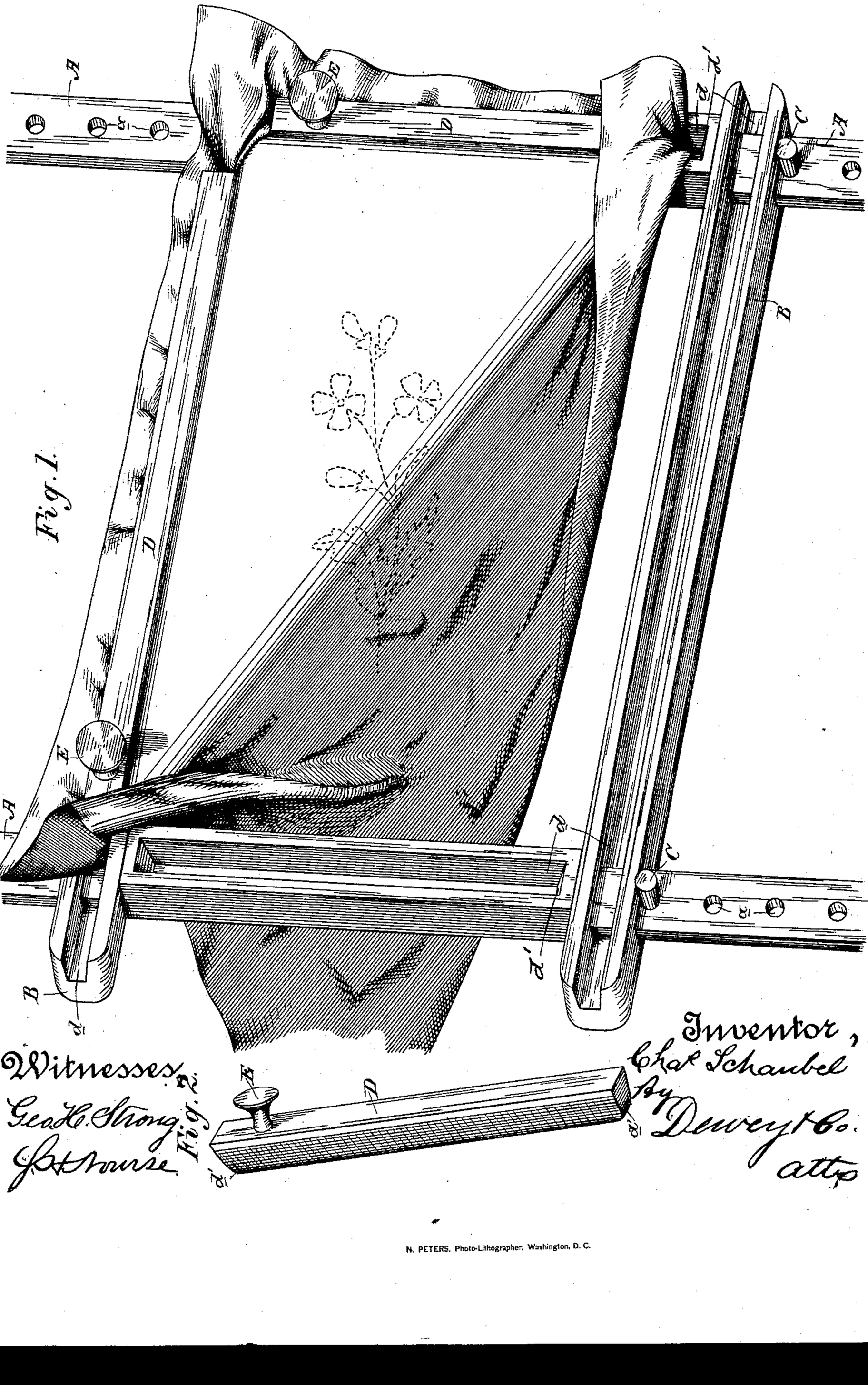
(No Model.)

C. SCHAUBEL.

EMBROIDERY FRAME.

No. 362,230. Patented May 3, 1887.



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UNITED STATES PATENT OFFICE.

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EMBROIDERY-FRAME.

SPECIFICATION forming part of Letters Patent No. 362,230, dated May 3, 1887.

Application filed January 20, 1887. Serial No. 224,937. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SCHAUBEL, of the city and county of San Francisco, and State of California, have invented an Improvement in Embroidery-Frames; and I hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to that class of frames specially adapted for holding under tension and in proper position material for receiving embroidery-work, painting, or repairs, or additions of various character; and my invention consists in the peculiar and novel means, hereinafter described, for readily tightening and holding under tension the material to be worked upon.

The object of my invention is to provide in a frame of this kind means for tightening and holding the material of such a character that they can readily be applied, and the operation of which shall be such that, while as effective as possible in their results, they will not in any manner injure the material or cause it to suffer any detriment whatever.

Referring to the accompanying drawings, Figure 1 is a perspective view of my frame, showing the clamping-bars D in place on two sides and removed on the other sides, the material being thrown back to expose the grooves *d*. Fig. 2 is a view of one of the clamping-bars.

The frame consists of the side pieces, A, and cross-pieces B, made of any suitable material, usually of wood. The cross-pieces B are slotted over the side pieces, A, so that they may have an adjustment to or from each other, in which adjustment they are fixed by removable pins C, fitting any of the series of holes *a* in the side pieces.

It is usual to stitch the work to embroidery-frames in order to hold it. In some frames small clamps are employed to grip the material and tighten it up, and in other frames the tightening depends solely on the principal adjustment of the main frame. All of these are open to various objections, the principal ones of which relate to their general inefficiency and complexity and to the injury to the material, due to unequal and imperfectly-distributed strain. To overcome these objections I accomplish the tightening by the following means:

In the pieces A and B are made elongated grooves or sockets *d*, into which fit the clamping bars or strips D. In using the frame its pieces are first properly adjusted. The material is then placed upon them, and the clamping-bars D are fitted into the grooves *d*, carrying the material down into them and holding it. In thus fitting themselves to the grooves they tighten the material, subjecting it to an equal and well-distributed strain, so that when taken off the frame, which can be readily done by removing the clamping-bars, it does not appear to have been under tension at all; but its edges are as smooth and unbroken as when first applied. There is no ripping or tearing out due to a strain too much concentrated, but the whole piece is as perfect as at first.

Though, as far as I have described, the grooves *d* and clamping-bars D may be of square or other shape in cross-section, I find that the best results are obtained by making them both wedge-shaped, as shown. The clamping-bars are thus made to hold much better; but a more decided advantage rests in the fact that with such a shape material of different thicknesses may be applied to the frame.

It is obvious that where the groove and bar are square in cross-section and the latter fits the former snugly, (as with this shape it must,) any variation in the thickness of material will destroy this fit and the bar will not hold well in place; but where they are wedge-shaped this is not the case, for no matter what may be the thickness of the material the bar will wedge itself in its seat as before.

It will be observed that I make the ends of the grooves *d* and clamping-bars D with a bevel at *d'*. This is for the purpose of preventing injury to the material when forced down into the groove at each end. A square end would have a tendency to tear it.

In order to readily remove the clamping bars or strips D, I have the small buttons or knobs E. These are placed near one end of the bars, so that they may be easily loosened—an operation which, on account of the wedging, would be much more difficult if the buttons or knobs were in the middle of the bars.

I am aware drawing-boards have been provided with grooves which are engaged by strips to hold the paper taut; also, that it not new to construct a drawing board or frame

with hinged slats arranged about its edges, the said slats having pins to catch and hold the paper or canvas. I am further aware a drawing-board has been formed of two hinged sections provided with grooves and projections, respectively, for holding the paper, and that a curtain-stretcher has been constructed with slotted sections or rails, whereby said stretcher may be adjusted to different sizes. These constructions I therefore do not broadly claim as my invention.

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

1. In an embroidery-frame, the removable clamping bars or strips having a wedge shape in cross-section and fitting in correspondingly-shaped grooves or sockets in the frame pieces or strips, whereby the material to be worked is held by friction and may be tightened and bound in said grooves or sockets and held under tension, substantially as described.

2. In an embroidery-frame, the frame pieces or strips having grooves or sockets in their faces, wedge-shaped in cross-section, in combination with the removable bars or strips having a wedge shape in cross-section and fitting the grooves or sockets, said bars being held in said grooves by frictional contact therewith, whereby the material to be worked may be tightened and bound in said grooves or sockets and held under tension, substantially as described.

3. In an embroidery-frame, the frame pieces or strips having the beveled or wedge-shaped grooves or sockets with beveled ends, as described, in combination with the removable bars or strips engaging said grooves or sockets by frictional contact and binding the material to be worked therein, substantially as described.

4. An improved embroidery-frame, consisting of the side pieces, A, the cross-pieces B, adjustable thereon, as described, said pieces A and B having the wedge-shaped grooves or sockets *d* in their faces, with beveled ends *d'*, and the removable wedge-shaped clamping bars or strips D, having knobs E near one end, said clamping bars or strips fitting the grooves or sockets and binding the material therein, substantially as described.

In witness whereof I have hereunto set my hand.

CHARLES SCHAUBEL.

Witnesses:
S. H. NOURSE,
H. C. LEE.