

G. W. Da CUNHA.  
Drawing-Board.

No. 215,333.

Patented May 13, 1879.

Fig: 1.

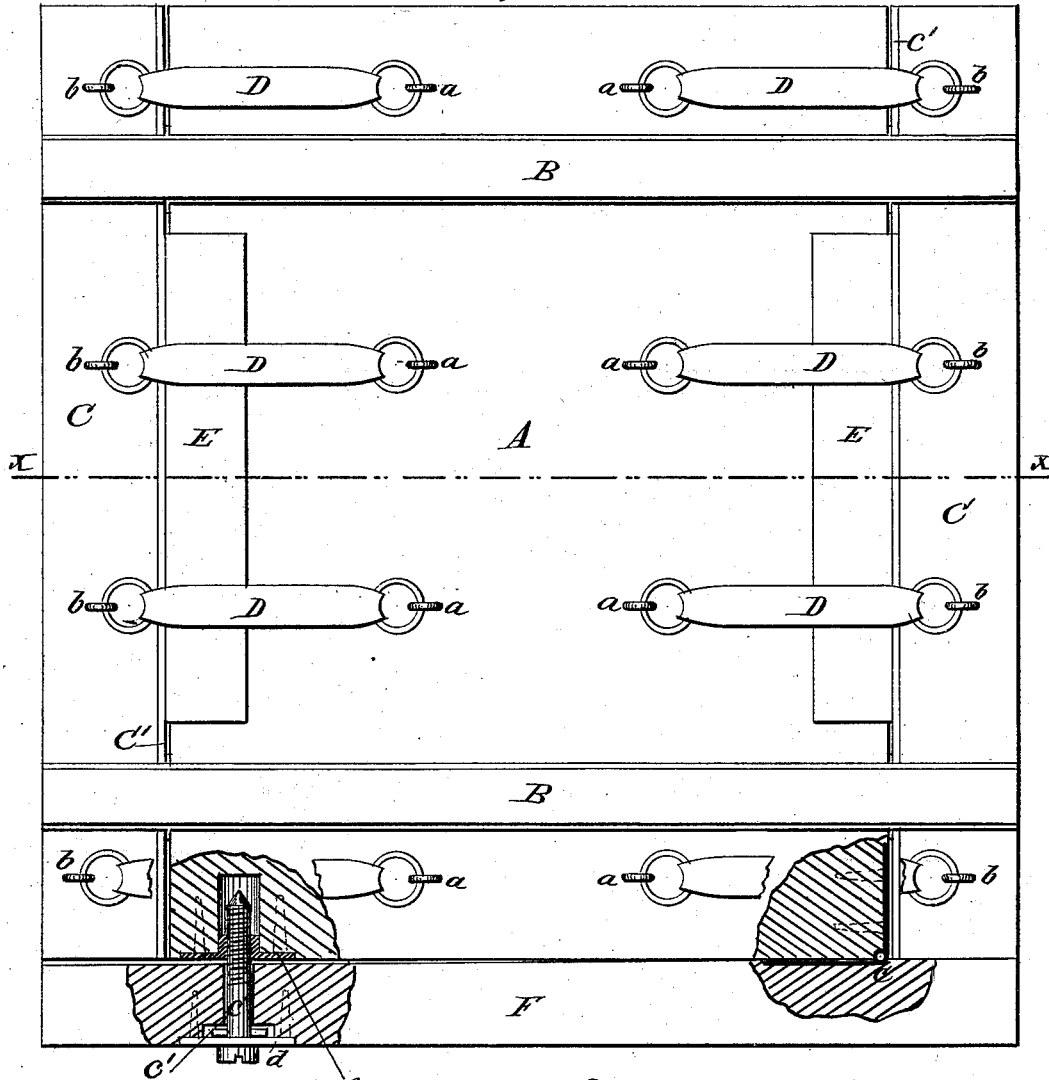
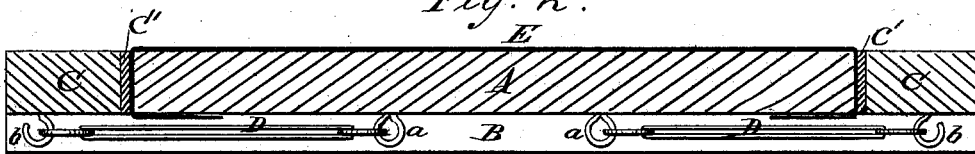


Fig: 2.



WITNESSES:

*Achilles Seehel.*  
*C. Seagwick*

INVENTOR:

*G. W. Da Cunha*  
BY *Munroe*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

GEORGE W. DA CUNHA, OF NEW YORK, N. Y.

## IMPROVEMENT IN DRAWING-BOARDS.

Specification forming part of Letters Patent No. **215,333**, dated May 13, 1879; application filed January 7, 1879.

*To all whom it may concern:*

Be it known that I, GEORGE W. DA CUNHA, of the city, county, and State of New York, have invented a new and Improved Drawing-Board, of which the following is a specification.

The object of this invention is to furnish a drawing-board on which the paper can be stretched and fastened without the use of tacks or paste, and which can be easily and quickly rectified when it loses its squareness.

It consists of a board having removable side pieces, the inside edges whereof are covered with rubber, between which and the edges of the board the paper is held. The removable side pieces are held in place by transverse cleats secured to the back of the board, dovetailed into the pieces holding them flush with the board, while rubber straps hold them against the edges of the board, and exert a continuous pressure against the paper.

It further consists of an end piece hinged at one end to the edge of the board, and its opposite end adjustably connected to the said edge by a set-screw, for squaring the board.

In the accompanying drawings, Figure 1 is plan of the back of the board with a part of one side in section, exposing the connection and adjustment of the adjustable squaring-piece; and Fig. 2 is a transverse section of the board on line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the drawing-board proper, across the back whereof are secured parallel to each other the cleats B B, the ends whereof extend equally beyond the edges of the board on either side, and the edges of the cleats are chamfered to enable them to form a dovetailed connection with the side pieces, C C, which have dovetailed grooves to receive the projecting ends of the cleats, whereby they are held flush with the surface of the board and secured against vertical displacement.

The edges of the pieces C C adjacent to the board are lined with a flat facing of india-rubber, C', secured by tacks, cement, or in any other suitable manner.

D represents rubber bands provided with rings at each end. One end of these bands is

secured permanently to the back of the board by means of the eyes *a*, joined to the rings; but the other ends are made to engage or disengage at pleasure the hooks *b*, screwed into the pieces C C, whereby these pieces are held to or disengaged from the board, as may be desired.

The operation of this part of my invention is as follows: The paper to be stretched, represented by the letter E, is dampened, and laid across the board with its ends projecting beyond those edges of the board adjacent to the removable pieces C C, and sufficiently far to be doubled down over the edge. The pieces C are then removed, either partly or entirely, from the board, the paper smoothed down in the usual manner, the end turned down as closely against the edges as possible, and the pieces C moved up against it, with the rubber facing pressing against it tightly, and they are held in place until the rubber bands are hooked to them, as clearly shown in the drawings.

The rubber facing presses against the paper and holds it securely under the continuously-exerted pressure of the straps D; hence the paper is securely fastened to the board, and it will be found to shrink much more evenly and smoothly than when it is fastened by pasting or with tacks, and, in addition, it is arranged much more expeditiously and easily.

As the boards subject to contraction and expansion cannot be maintained at an exact square, I provide an arrangement that enables me to rectify any error in this respect that may occur from any cause. This consists of an end piece, F, secured to the edge of the board at one end by a hinge, *c*, while at the opposite end it is connected with the board by a set-screw, *c'*, passed through a plate, *d*, let into the edge of piece F, and passed thence through a nut, *e*, let into the edge of the board. The set-screw is connected with the piece F, so as to move it as it is screwed in and out of the nut. When the board gets out of square, this piece F is moved in or out, as the case may be, until the variation is rectified, and when in the proper position to compensate therefor one or more paper washers are inserted between its edge and that of the board to hold it in position.

Having thus described my invention, I claim

as new and desire to secure by Letters Patent—

1. As an improvement in drawing-boards, the adjustable side pieces, C, provided with rubber facings C', in combination with board A, cleats B, and rubber fastening-bands D, for holding the paper on the board, substantially as described.

2. The end piece, F, one end hinged to the edge of the board and the opposite end connected therewith by a set-screw, c', whereby it is laterally adjustable to the board, for the purpose of rectifying any variation in the squareness of the board, substantially as described.

3. The combination and arrangement, in a drawing-board, of the following parts, to wit: the side pieces, C C, forming a dovetailed connection with the cleats B B, and held in place by said cleats and rubber bands D, the rubber facings C' on said pieces, the rubber bands D, the adjustable piece F, for rectifying any variation in the squareness of the board, and the board A, substantially as described, and for the purposes set forth.

GEORGE W. DA CUNHA.

Witnesses:

C. SEDGWICK,  
WILTON C. DONN.