No. 697,848. Patented Apr. 15, 1902.

# E. B. JARVIS.

## DRAWING BOARD.

(Application filed Nov. 8, 1901.)

(No Model.)

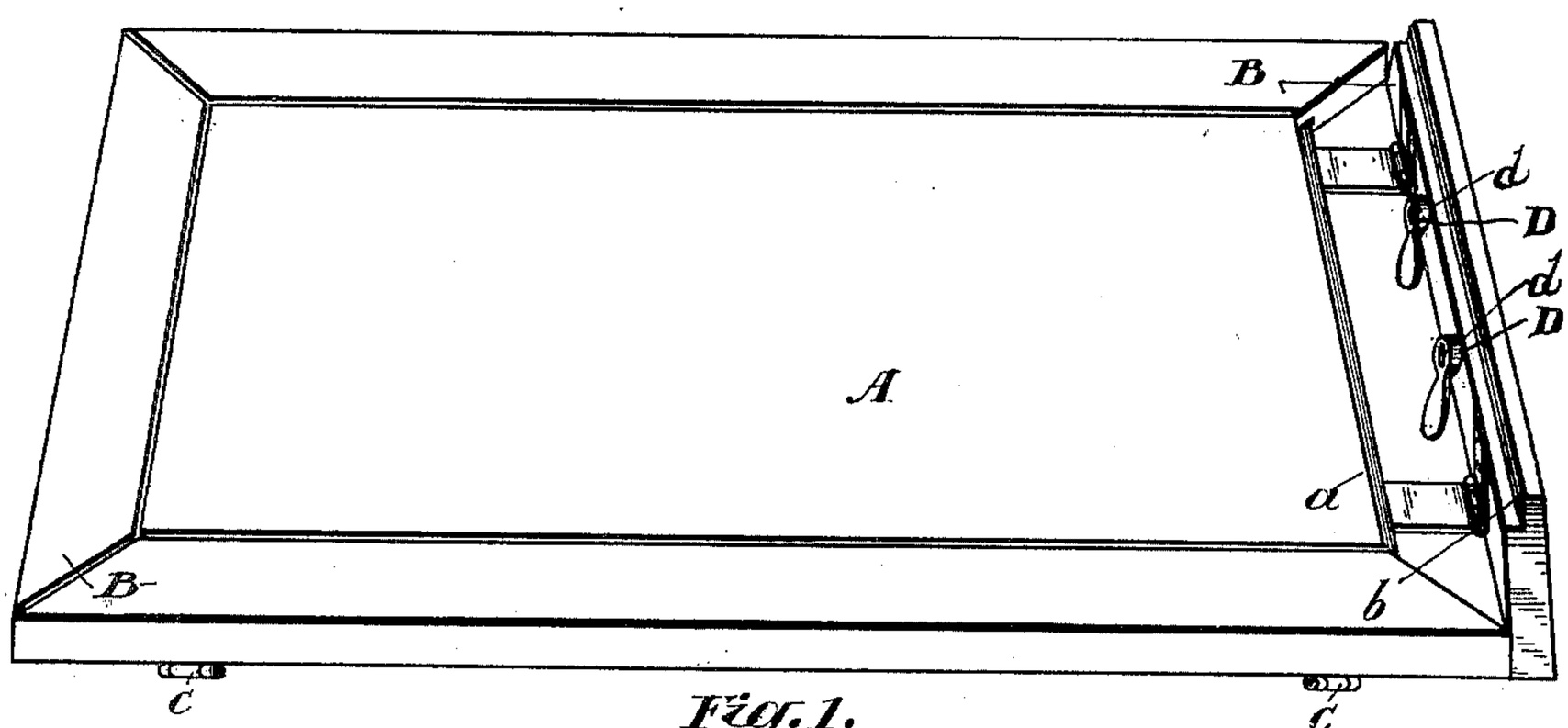


Fig. 1.

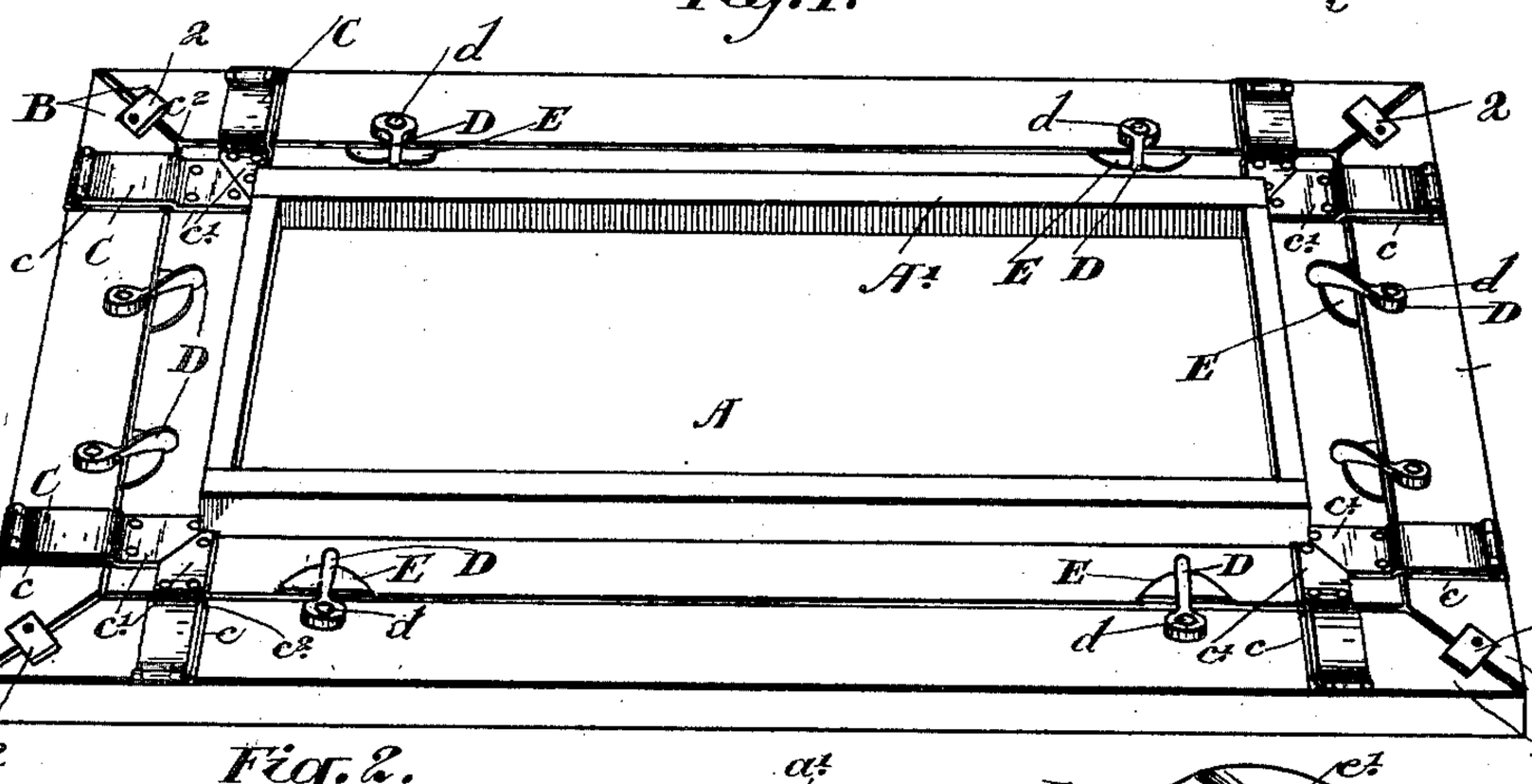


Fig. 2.

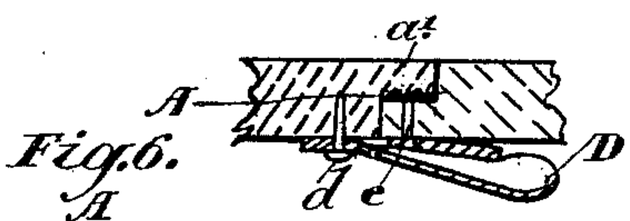


Fig. 6.

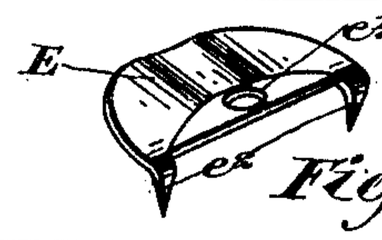


Fig. 7.

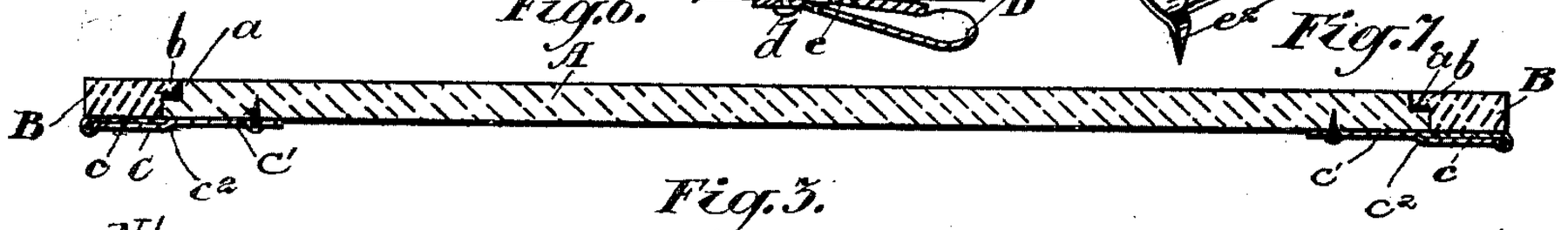


Fig. 3.

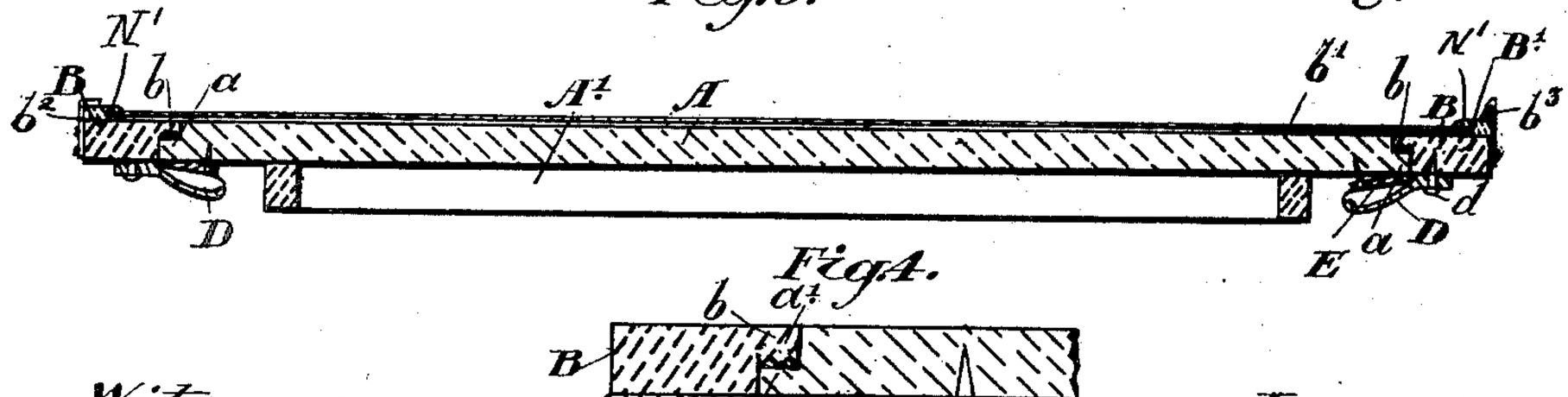


Fig. 4.


Fig. 5.

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# UNITED STATES PATENT OFFICE.

EDGAR BEAUMONT JARVIS, OF TORONTO, CANADA.

## DRAWING-BOARD.

SPECIFICATION forming part of Letters Patent No. 697,848, dated April 15, 1902.

Application filed November 8, 1901. Serial No. 81,609. (No model.)

*To all whom it may concern:*

Be it known that I, EDGAR BEAUMONT JARVIS, architect, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Drawing-Boards, of which the following is a specification.

My invention relates to improvements in drawing-boards; and the object of the invention is to devise a simple form of board by which the paper may be held stretched and taut on the surface of the board without the use of drawing-pins or other surface obstructions; and it consists, essentially, of a board or board-frame having connected thereto side bars by suitable hinges secured on the board and to the bars at the bottom, the board being preferably provided with a rabbeted edge, against which the corresponding rabbeted edges of the bars are designed to abut and be held, suitable fasteners being provided for this purpose and the parts being otherwise arranged and constructed in detail as hereinafter more particularly explained.

Figure 1 is a perspective view of a drawing-board constructed in accordance with my invention, one of the side bars being turned upwardly to exhibit the connection to the main portion of the board or board-frame. Fig. 2 is a reverse view showing the bottom of the board and the means of connecting the side bars to it. Fig. 3 is a longitudinal section through the board and hinges. Fig. 4 is a longitudinal section through the board, showing the fasteners. Fig. 5 is an enlarged detail showing the hinge. Fig. 6 is an enlarged detail showing the fasteners. Fig. 7 is a detail of the spring-plate, forming portion of one fastener.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the main portion of the board or board-frame, which may be a plain surface or may be otherwise formed, according to the use.

A′ is a rectangular frame secured to the bottom of the frame of the board A and designed to stiffen the board and prevent it from warping and protect the table from the fasteners.

B represents the side bars, which abut each other at the ends, preferably at an angle of forty-five degrees.

C represents the hinges, the lower member $c$ of which is secured to the side bars and the upper member $c'$ of which is secured to the board outside the frame A′, as indicated. The pivot of the hinge is at the outer edge of the side bars, and the hinge is formed with a bend $c^2$, so that such member may be secured to the board without the necessity of having to groove the bars to receive the under member.

It will be noticed that the board A has a rabbeted edge $a$ and the bars B have a rabbeted edge $b$, the flange of which is designed when the bar is down to rest or, more properly, be brought home against the corresponding step of the edge $a$. A rubber strip or strips $a'$ are used on one or other of the edges, as indicated, or, if preferable, steel strips with teeth.

When it is desired to place the paper in position, it is of course necessary to turn up all the bars correspondingly to the position in which the bar on the right-hand side of Fig. 1 is shown, when the paper may be inserted in position after having been previously cut to a proper size. The bars may then all be placed down and be fastened in position by any suitable form of fastener, but the form shown is preferred. This form consists of a pivoted lever D, having a tooth-like portion for engaging the bent-up edge of the spring-plate E, which is secured in position by a screw $e$, extending through a hole $e'$ in the plate, the plate being held from turning by the spicular projections $e^2$, which extend into the wood. The lever may be swung off the plate, and the inner end, through which the screw passes, may be of a spring-like form, if necessary, so that when the lever is thrown off the lever D will remain in position over the bar B. I show eight of these levers and their coacting spring-plates; but it will of course be understood that any number that may be desired may be used, this, of course, depending on the size of the board and the use to which it may be applied. When the paper has been placed on the board A and the side bars B are fastened down, of course such paper may be wet and stretched in the usual manner.

By a drawing-board such as I describe it will be readily seen that I dispense with all drawing-pins to hold the paper down and have

a smooth surface over which the draftsman may work with his set-square or T-square.

In Patent Office boards I may find it preferable to use thin strips fastened to the bars B, such strips being designed to extend over the edge of the bristol-board, which will be of a corresponding size to the board A. By this means it will be seen that I am enabled to prevent the edges or corners of the bristol-board being turned up or rendered unsightly, and thereby preserve the drawing unbroken and suitable for reproduction by photolithography.

Although I show my invention as particularly applicable to drawing-boards, it will of course be understood that it may with equal facility be applied to other purposes in which it is necessary to stretch or hold taut paper or other material.

It will be seen that I have shown where the bars meet at the corner plates 2, which are pivoted to the end miter of two of the bars. It will thus be seen that as the two side bars are closed first that when the other bars are closed, that the plates overhanging the miter will press and hold down the two side bars previously closed. In this way I may in some instances find it preferable where there is not much strain required to dispense with side fasteners.

In my invention it will be seen that when the bars are being closed or swung down, so that the rabbeted edges of the bars pass over the edge of the paper, that as soon as the under face of the rabbet with the gripping edge strikes the paper it grips the same on each edge, and consequently the paper when the rabbet is brought home is stretched at each edge a corresponding depth to the depth of the upper flange and rabbet.

In Fig. 4 I show my drawing-board arranged as a bulletin-board—that is, I show it with a frame N′, having a glass $b'$, which is designed to fit over the bulletin and keep the same clean—such bulletin being fitted the same as drawing-paper would be, with the edges caught by the rabbet. In order to hold the frame and glass in position, I provide at the bottom hooks $b^2$, through which the bottom of the frame fits, and spring-catches $b^3$ at the top, into which the top of the frame may be sprung. In order to remove the glass frame, it is merely necessary to press the catches back, when the frame may be readily withdrawn for the insertion or placing of a new bulletin in position.

What I claim as my invention is—

1. In a drawing-board, independent side bars, hinges extending from underneath the board to a point outside of the board so as to form a rest for the bars and with the pivot of the hinge on the outer lower edge, such bars being so arranged that they fold inwardly and downwardly from such pivot, so as to abut the edges of the board and draw down the paper overhanging such edges as specified.

2. In a drawing-board independent side bars, hinges extending from underneath the board to a point outside of the board, so as to form rests for the bars and with the pivot of the hinge on the outer lower edge, the said board being provided with an underlying step or projection extending lengthwise of the lower portion of the edge of the board and the said bars being provided with an overlying step or projection designed to fit over the underlying step on the board, so that the paper is gripped and securely held as specified.

3. In a drawing-board, the board, independent side bars, hinges extending from underneath the board to a point outside of the board, so as to form rests for the bars and with the pivot of the hinge on the outer lower edge, the said board being provided with an underlying step or projection extending lengthwise of the lower portion of the edge of the board and the said bars being provided with an overlying step or projection designed to fit over the underlying steps on the board, so that the paper is drawn and stretched and a gripping device extending along between such overlying and underlying portion as specified.

4. The combination with the central board, of the bars forming a boundary for the frame, hinges having one member secured to the board and the other member secured to the bars, so that the pivot of the hinge is outermost, the member of the hinge secured to the bar being above the surface thereof and the member of the hinge secured to the board having a bend whereby the inner end is securely fastened close to the surface of the board as and for the purpose specified.

5. The combination with the board and the independent bars suitably connected thereto at the outside edges, of pressure-plates connected to two bars and extending over the end miters of the two coacting bars and adjusting means for securing the aforesaid bars in position as and for the purpose specified.

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