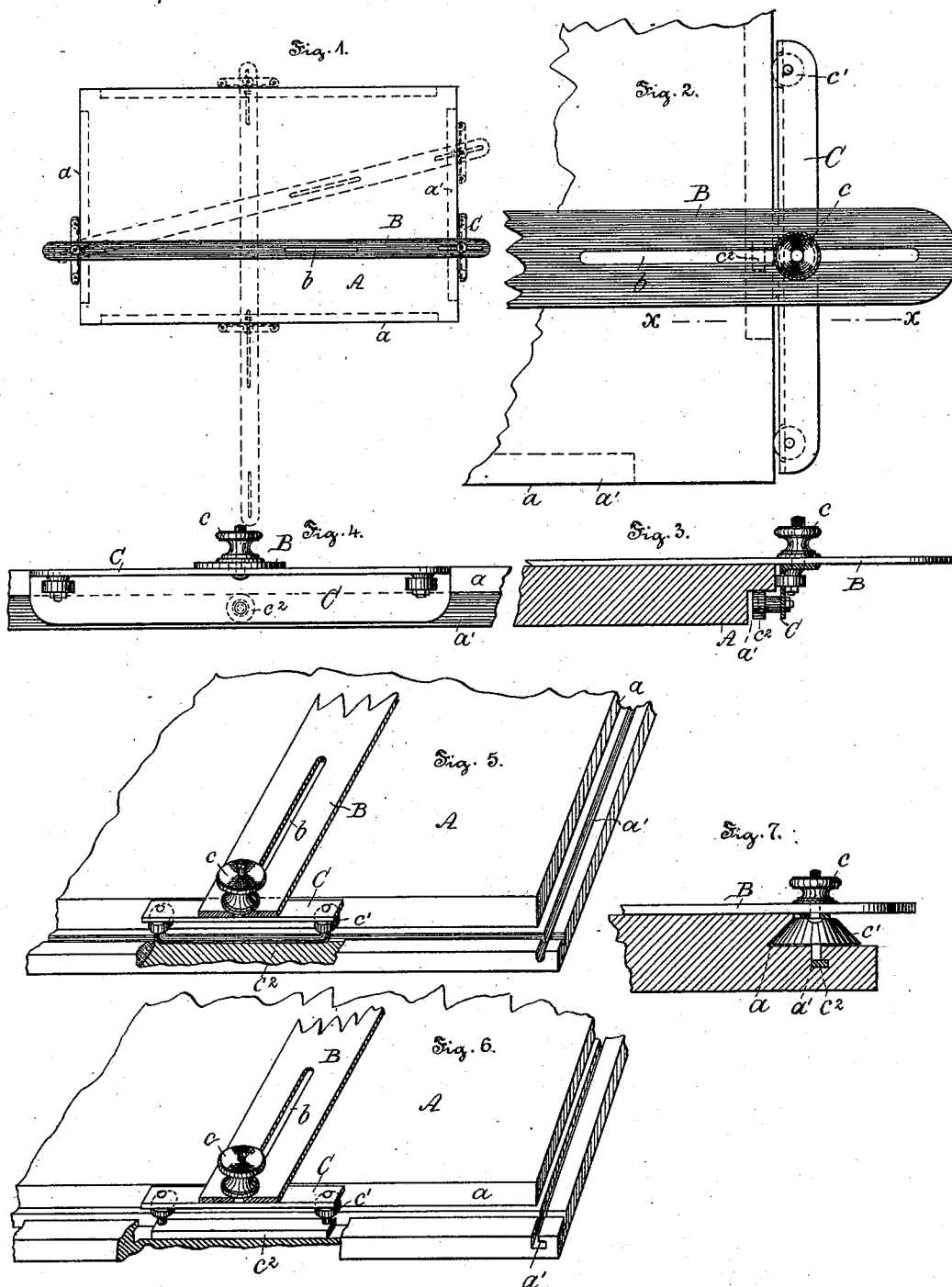


(No Model.)

C. E. SAJOUS.  
DRAWING BOARD.

No. 429,586.

Patented June 3, 1890.



Witnesses:  
Thomas M. Smith.  
Hermann Bornemann.

Inventor:  
Charles E. Sajous,  
by J. Walter Douglass.  
att'y.

# UNITED STATES PATENT OFFICE.

CHARLES E. SAJOUS, OF DEVON, ASSIGNOR TO SERENA M. BERGNER, OF  
PHILADELPHIA, PENNSYLVANIA.

## DRAWING-BOARD.

SPECIFICATION forming part of Letters Patent No. 429,586, dated June 3, 1890.

Application filed April 14, 1890. Serial No. 347,775. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. SAJOUS, a citizen of the United States, residing at Devon, in the State of Pennsylvania, have invented certain new and useful Improvements in Drawing-Boards, of which the following is a specification.

It is well understood by those skilled in the art to which my invention relates that drawing-boards and T-squares as usually constructed and employed are unreliable for drawing parallel lines, because the accuracy of the parallel motion of the T-squares is dependent upon the alignment of the edges of the drawing-boards and of the heads of the T-squares.

Heretofore various modifications in the construction and arrangement of the boards and of the rulers have been devised in order to make them more reliable for ruling parallel lines—for instance, a very efficient board having an absolutely-parallel motion has been provided by attaching the ruler to an endless cord stretched crosswise over grooved pulleys secured to the corners of the board.

The principal object of my present invention is to provide an inexpensive, durable, and efficient means for insuring absolute parallelism of motion of rulers used in connection with boards of different construction for drawing purposes.

My invention consists of a drawing-board having parallel recesses or grooves formed in the edges thereof, and having a ruler connected with carriages provided with guide-rollers and travelers adapted to engage in the recesses or grooves of the board, as hereinafter particularly described, and pointed out in the claims.

The nature and particular characteristic features of the invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, and in which—

Figure 1 is a top or plan view of a drawing-board having the ends recessed or grooved, and showing also a ruler and the mechanism connected therewith for actuating the same, embodying the features of my invention. Fig. 2 is a similar view, on an enlarged scale,

of a board partially broken away, and showing the two parallel grooves or recesses therein, one of the carriages provided with guide-rollers and a traveler adapted to engage in the grooved or recessed portions of the board and the ruler adjustably attached to said carriage. Fig. 3 is a transverse sectional view on the line *xx* of Fig. 2. Fig. 4 is an elevational view of one end of the board, showing the ruler and the devices connected therewith and adapted to actuate the same. Fig. 5 is a perspective view of a board of my improved construction, showing a portion of the slotted ruler-carriage with its traveler, the adjusting means, and the rollers connected with the extremities thereof and so arranged that the ruler may be lifted *ad libitum* from off the board. Fig. 6 is a similar view of a board embodying my invention, and showing a portion of the slotted ruler, a carriage provided with a traveler, and devices whereby the ruler may be adjustably secured thereto, and so arranged as not to permit of the removal of the ruler *ad libitum* from the board, as in Fig. 5; and Fig. 7 is a transverse sectional view of a board provided with a ruler adjustably attached to a carriage provided with a conical-shaped guide-roller embodying features of my invention.

Referring now to the drawings, A is a board of the usual or any preferred construction.

*a* and *a'* are parallel grooves or recesses formed in the edges of the board and extending around the same.

B is a ruler having longitudinal slots *b* formed therein and extending inward from the extremal portions thereof.

C is one of the carriages, provided at or near the center thereof with a set-screw *c*. To the extremal portions of this carriage are journaled rollers *c'*, adapted to engage with or in the recessed or grooved portions *a* of the board A.

*c*<sup>2</sup> is a traveler attached to the carriage C and adapted to engage in the groove or recess *a'*. This traveller may consist of an ordinary roller of the type illustrated in Figs. 1, 2, 3, and 4; or it may consist of a round or flat piece of metal, as shown in Figs. 5 and 6, or a metallic piece used in connection with a

conical-shaped guide-roller, as illustrated in Fig. 7.

In use the carriages C are attached to the extremital portions of the ruler B by means of the set-screws *c*, passing through the respective slots *b* therein. The guide-rollers *c'* and traveler *c<sup>2</sup>* are arranged so as to have a free range of movement in, through, or with the grooved or recessed portions *a* and *a'* of the board A, in order that the ruler B, when moved across the board by the operator thereof, may be caused to assume a position parallel with its former one, and thus insure accuracy in the drawing of parallel lines on the sheet that may be mounted on the board.

Instead of adjusting the ruler B so as to occupy a position parallel with the edges of the board, it may be adjusted at any required degree of inclination therewith by means of the set-screws *c*, as illustrated in dotted lines in Fig. 1, without in any respect impairing the parallelism of motion of the ruler B in connection with the board.

It may be remarked that the ruler B may be attached to the board so that it cannot be removed therefrom *ad libitum* by arranging the traveler *c<sup>2</sup>* so that it will engage with the grooved or recessed portion *a'* of the board A in the manner illustrated in Figs. 1, 2, 3, 4, 6, and 7, or, if preferred, the ruler B may be connected with the board A so that it may be lifted therefrom by causing the traveler *c<sup>2</sup>* to assume a position in engagement with the grooved or recessed portion *a'* of the board in the manner illustrated in Fig. 5.

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

1. The combination of a drawing-board having parallel recessed or grooved edges, a ruler, carriages provided with a traveler, and guide-rollers adjustably attached to said

ruler, and said traveler and rollers having a range of movement in, through, or with the recessed or grooved portions of the board, substantially as and for the purposes set forth.

2. The combination of a drawing-board having grooved or recessed edges, a ruler, carriages provided with a traveler and with guide-rollers, and said carriages connected with said ruler and afforded a range of movement in or with said board, substantially as and for the purposes set forth.

3. The combination of a drawing-board having recessed edges, and a slotted ruler having carriages provided with guide-rollers and a traveler and attached to said ruler by means of set-screws, substantially as and for the purposes set forth.

4. The combination of a drawing-board having its edges recessed adjacent to the surface thereof, a ruler, carriages provided with guide-rollers, and a traveler connected thereto and having a range of movement in and through the recessed portions of said board and to permit of said ruler being lifted therefrom, substantially as and for the purposes set forth.

5. The combination of a drawing-board having two parallel recesses formed in the edges thereof, carriages provided with guide-rollers and a traveler, a ruler, and means connected with said carriages for adjusting said ruler thereto, substantially as and for the purposes set forth.

In witness whereof I have hereunto set my signature in the presence of two subscribing witnesses.

CHARLES E. SAJOUS.

Witnesses:

GEO. W. REED,  
THOMAS M. SMITH.