

I. P. HANSELL.  
Drawing Board.

No. 21,336.

Patented Aug. 31, 1858.

Fig. 1

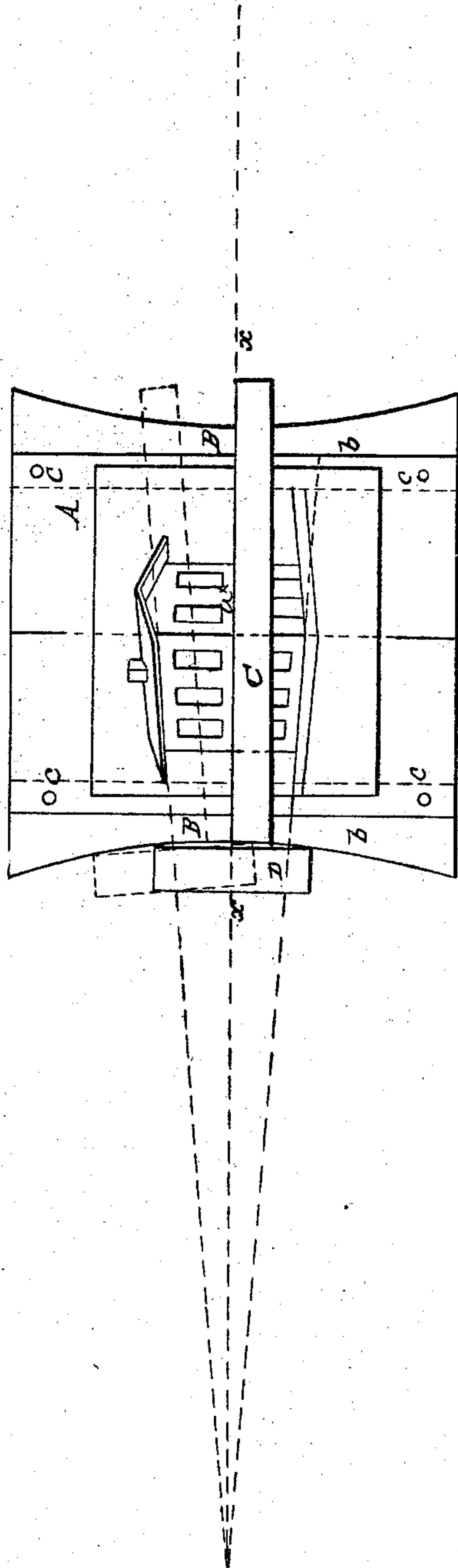
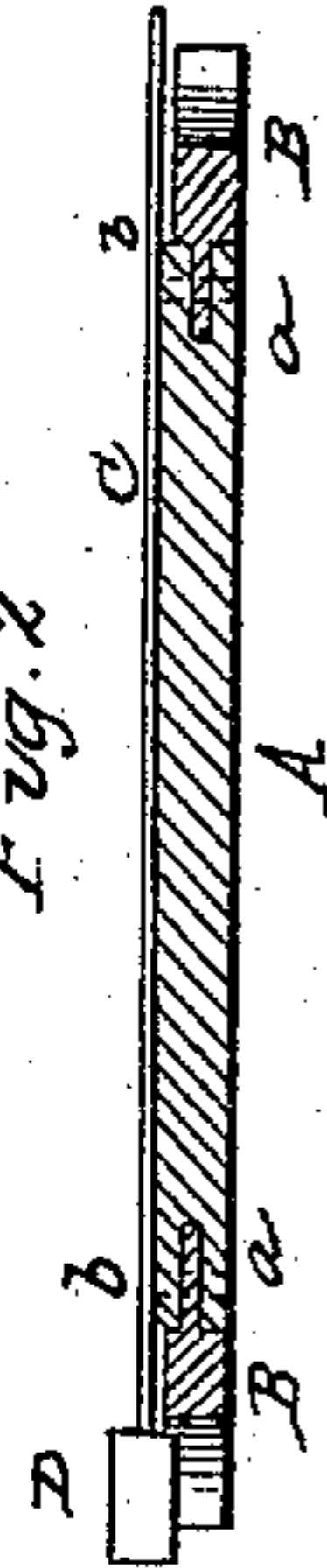


Fig. 2





# UNITED STATES PATENT OFFICE.

ISSACHAR P. HANSELL, OF SPRINGFIELD, ILLINOIS.

## DRAWING-BOARD.

Specification of Letters Patent No. 21,336, dated August 31, 1858.

*To all whom it may concern:*

Be it known that I, ISSACHAR P. HANSELL, of Springfield, in the county of Sangamon and State of Illinois, have invented a new and Improved Drawing-Board for Perspective Drawing; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a face view of my invention. Fig. 2, is a section of ditto, taken in the line  $x, x$ , Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

This invention consists in having an adjustable curved strip fitted in each side of the board, the outer edges of the strips being the curved parts and forming guides for the square, the curves being struck or formed from the vanishing point or point of distance of the object to be drawn and determining the proper angle at any point of their curved surface for the vanishing lines. The board has also straight guides at each side in order that the square when required may be adjusted parallel with the base of the board.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents a drawing board constructed of wood and of rectangular form. This board may be constructed in the usual way, perfectly true so that the angles at the corners will be right angles. In each side edge of the board A, a rabbet is made to receive the tenons  $a$ , of strips B, B, a strip being at each edge or side of the board. These strips are also of wood and extend from the bottom to the top of the board. The lower surfaces of the strips B, B, are or may be "flush" with the under side of the board, but the upper surfaces do not reach the level or plane of the board A, and consequently a shoulder or ledge  $b$ , is formed at each side, as shown clearly in Fig. 2. The outer edges of the strips B, B, are made of curved or concave form as shown clearly in Fig. 1. These curves are formed or struck from centers which form the vanishing point of the drawing and consequently said curved surfaces will form guides for the square which will be placed in radial positions so that proper vanishing lines may be obtained by it at any point of the curves against

which it may be placed. This will be understood by referring to Fig. 1, in which a perspective view of a building is shown in blue on the board. The point of sight is at the center of the board at  $a^x$ .

C, represents the blade of a square and D, the head, the blade being attached to one side of the center of the head so that the upper edge of the blade will be at the center of the head. This position of the blade and head is essential, for the upper edge of the blade should be precisely in line with the center of the head. In Fig. 1, the upper edge of the blade is precisely on the horizon and consequently the upper edge of the blade is at the center of the strips B, B. In cases of parallel perspective or in oblique perspective where the geometrical or ground plan of a building or other rectangular object is placed so that its sides shall make an angle of forty-five degrees with the base line of the perspective picture the curves of the strips B, will be struck or formed from the points of distance  $b^x$ , as centers, for in such cases the vanishing lines always meet at the points of distance, see red lines Fig. 1, in which the point of distance at one side of the board is shown. It will be seen therefore that by shifting the square along the curved edges of the board the proper vanishing lines will be obtained for the building at all points. In other cases of oblique perspective where the geometrical plan is not at an angle of forty-five degrees with base line of the perspective picture the process may be shortened by using curves struck or formed from the vanishing points as centers regardless of the points of distance. This of course will be clearly understood, for as the vanishing lines all tend to one point the curves of the strips B, must be parts of circles of which the vanishing points are the centers. In drawing parallel perspective the head D, of the square is placed against the ledges  $b$ , in order to obtain the lines that are parallel with the base of the board.

I would remark that the strips B, B, may be raised or lowered or adjusted so that the horizon may be at any desired height, the strips being secured at any desired point by pins  $c$ .

By this invention perspective views may be expeditiously drawn and with perfect accuracy.

The device will prove highly valuable for



architects, mechanical draftsmen and others who are required to make perspective drawings with mathematical accuracy.

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

The strips B, B, placed at each side of the board A, and having their outer edges curved or made of concave form in the man-

ner herein described, and used in connection with the square having its blade C, and head D, arranged relatively with respect to each other as set forth, the whole being for the purpose specified. 10

ISSACHAR P. HANSELL.

Witnesses:

JOHN E. REUTH,  
JACOB LEWIS.