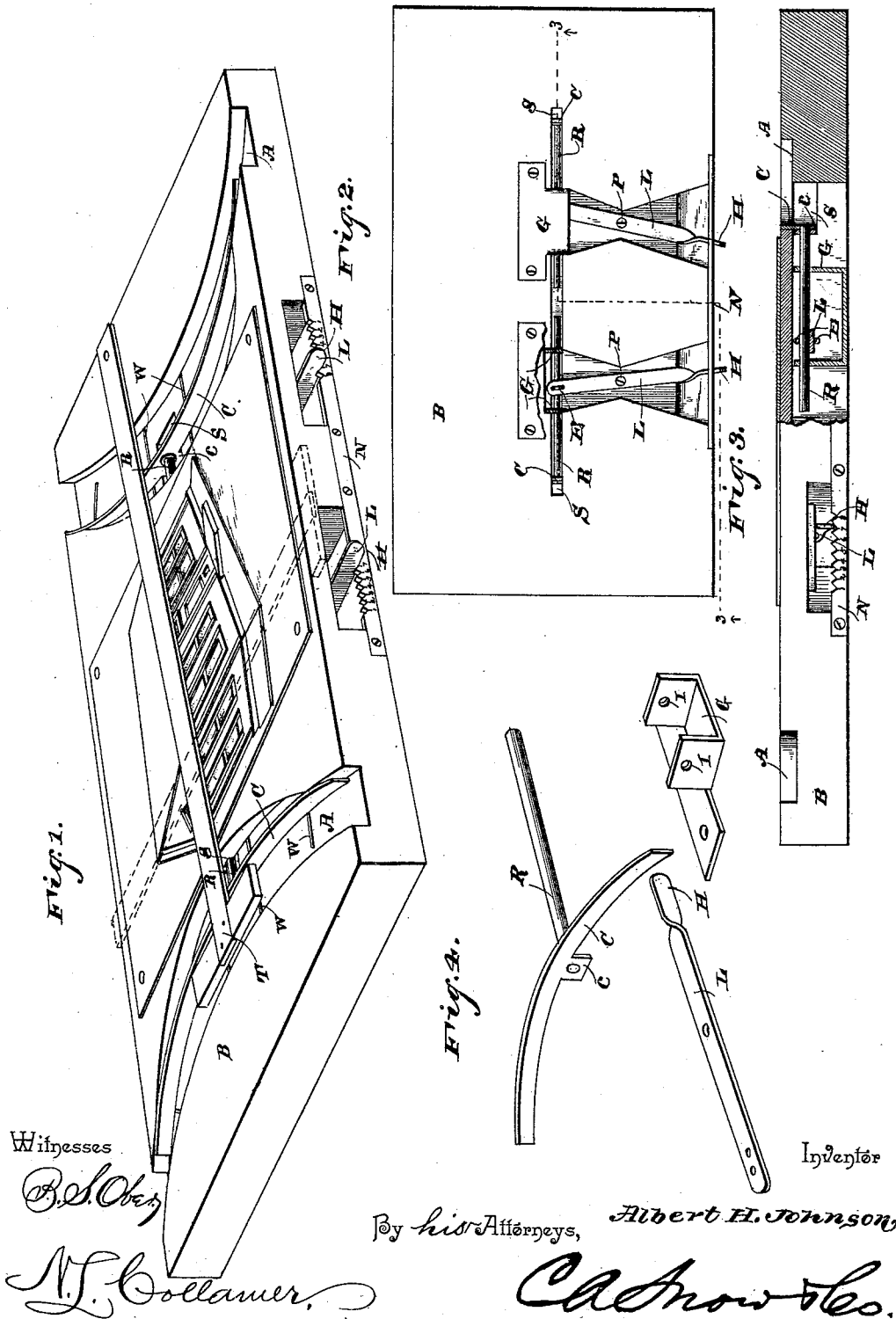


A. H. JOHNSON.
DRAWING APPARATUS.

No. 482,127.

Patented Sept. 6, 1892.



(No Model.)

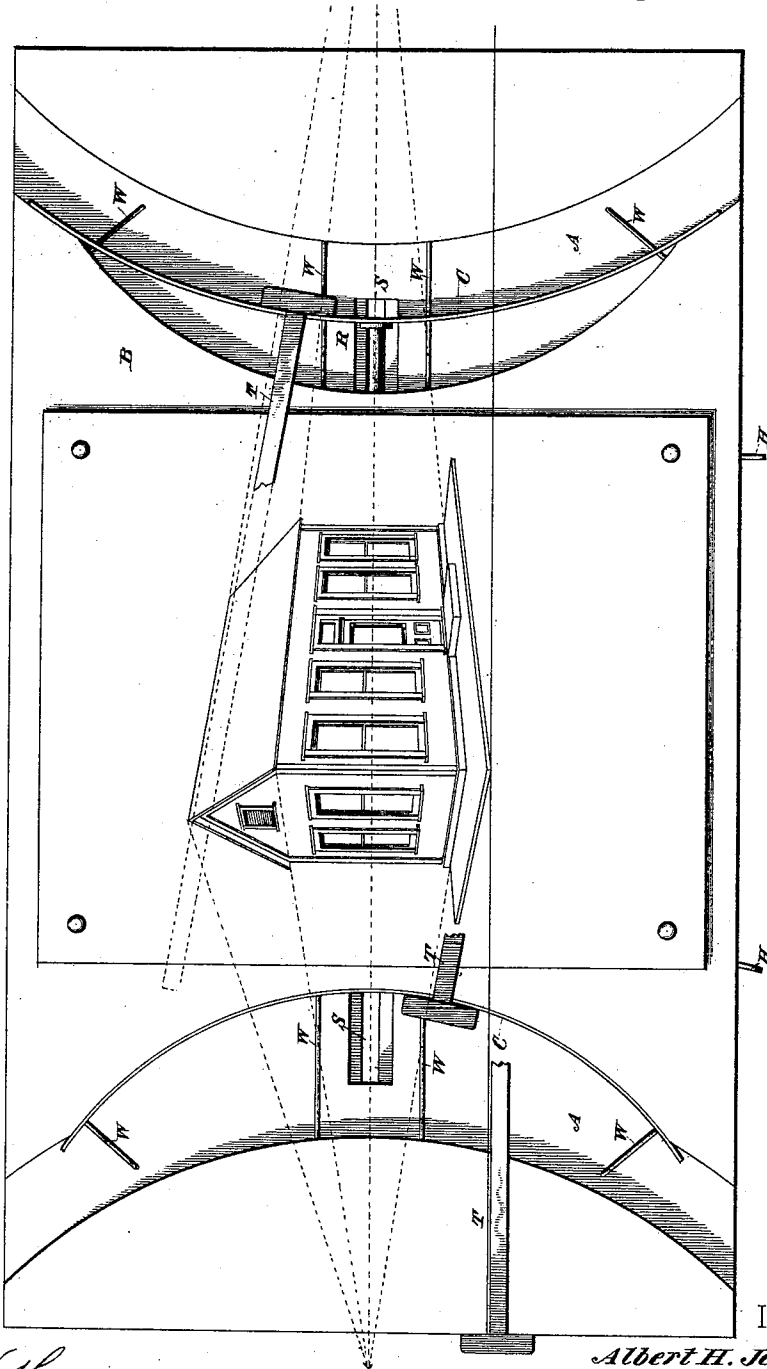
2 Sheets—Sheet 2.

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Fig. 5.



Witnesses,

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By *his* Attorneys,

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Inventor,

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UNITED STATES PATENT OFFICE.

ALBERT H. JOHNSON, OF TAMPA, FLORIDA.

DRAWING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 482,127, dated September 6, 1892.

Application filed September 14, 1891. Renewed July 22, 1892. Serial No. 440,924. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. JOHNSON, a citizen of the United States, residing at Tampa, in the county of Hillsborough and State of Florida, have invented a new and useful Drawing Apparatus, of which the following is a specification.

This invention relates to drawing, and more especially to the boards used therein, and the object of the same is to produce a board whereon may be drawn true perspective views.

To this end the invention consists in a board having within its face curves or curved guides adapted to be used with an ordinary small-sized T-square, in means for adjusting the curvature of said curves, and in certain details of construction, all as will hereinafter appear, and will be pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of this drawing-board, showing the manner in which the small and large squares are used therewith. Fig. 2 is a bottom plan view with the guides broken away. Fig. 3 is a section on the line 3 3 of Fig. 2. Fig. 4 is a perspective detail of certain parts. Fig. 5 is a plan view of the board complete.

Referring to the said drawings, the letter B designates the body of the board, whereon may be secured, as by thumb-tacks or otherwise, the paper on which the drawing is to be done, as shown, but forming no part of the present invention. This board is perfectly rectangular and of considerable thickness in order that the usual T-square and other drawing-instruments may be used thereon, as well known by those skilled in the art. Near each end of the board I cut in its upper face a curved recess or arc A, in whose bottom are preferably set wire or other guides W, and over and upon these guides ride the lower edges of spring metal strips or curves C, their ends bearing against the inner walls of the arcs near the ends of the latter, as shown. With this construction, if an ordinary T-square T be placed with its head in one of the arcs and its inner face resting against one of the curves, it will be obvious that its blade will stand at all times in a direction at right angles to the chord which its head makes across the curve. The center of the circle of

which the curve is an arc will be the vanishing-point of the sketch or picture to be drawn, and when the blade stands directly across the board the true horizon will appear, while above or below such position the blade will stand at an angle to the horizontal, though the line drawn will always be directly toward the vanishing-point.

In Figs. 1 and 5 I have shown an ordinary frame-house as being drawn on the paper, and under such circumstances it is well known to artists that the vanishing-points at the opposite sides of the central vertical line must be at different distances in order to attain a true perspective. Hence the curve at the left of the picture must be of a circle having a smaller radius than that at the right.

It does not always occur that the pictures to be drawn are to appear in the foreground, as here shown, or are to be on the same scale, and hence it may be desirable on occasions to adjust the vanishing-points, and this I accomplish in the following manner: Secured to a lip c, depending from the center of each curve C, is a bar or rod R, whose body works in a recess or slot S within the body of the board and preferably moves in eyes I in a metallic guide G, Fig. 4, for the sake of greater accuracy. L is a lever pivoted at P, also within the body of the board, its inner end E being pivotally connected with the rod R, while its outer end is turned, so as to form a handle H, and projects through the edge of the board at the front, but too low to be struck by the head of the usual T-square when used. N is a notched plate secured to this edge of the board and over which the handle moves, the notches being suitably marked with a scale alongside, in order that the degree of adjustment may be apparent. With this construction it will be obvious that when the handle is moved in one direction the center of the curve will move in the opposite and the resiliency of said curve at all times keeps it in the arc of a true circle. By this means the operator can quickly adjust the vanishing-point at either side of his board, and hence architectural drawings may be made with a great degree of accuracy and with much artistic taste. The constant shifting of the square and other instruments in drawing true perspectives is

thus avoided, for no matter what line is to be made the T-square T will give it with accuracy and dispatch.

I do not limit myself to the details of construction, nor to the materials or sizes of parts, and considerable change in and elaboration of the device herein shown and described may be made without departing from the spirit of my invention.

10 What is claimed as the salient features is—

1. A drawing-board having near one edge the curved depression or recess on the arc of a circle, in combination with a T-square
15 whose blade passes over the curve and the ends of whose head loosely rest against the outer face of said curve, said head projecting below the surface of the board and working entirely within said curved depression, as and
20 for the purpose set forth.

2. A drawing-board having depressed arcs or recesses in its face near its ends and in each arc a supplemental curve on the arc of a circle and bent inwardly at its center, in
25 combination with an independent T-square, whose head loosely rests against said curve and works within said recesses, as and for the purpose set forth.

3. A drawing-board having depressed arcs
30 or recesses in its face near its ends and wire guides in the bottoms of said arcs, in combination with a supplemental inwardly-bent spring-curve in each recess, having its free working ends resting on said guides, and
35 means, substantially as described, for adjusting the bend of said curve with relation to said depressed arcs, but always keeping it on the arc of a circle, as and for the purpose set forth.

40 4. The combination, with a drawing-board and near one edge thereof an inwardly-bent curve, of means, substantially as described,

for adjusting the bend of said curve, but always keeping it on the arc of a circle, as and for the purpose set forth.

5. The combination, with a drawing-board
45 having a depressed arc in its face and a supplemental spring-curve within said arc and having its free working ends resting against the inner wall thereof, of a rod connected directly to the center of said curve and moving
50 longitudinally in the body of the board, and means, substantially as described, for adjusting the position of said rod from the front edge of the board, as and for the purpose set forth.

6. The combination, with a drawing-board having a depressed arc in its face and a spring-curve within said arc, its ends resting against the inner wall thereof, of a rod connected to the center of said curve and moving
60 in the body of the board, a lever pivoted near one end to said rod and centrally to the board, and a notched plate over which the other end of the lever moves, as and for the
65 purpose set forth.

7. The combination, with a drawing-board having a depressed arc in its face and a spring-curve within said arc, its ends resting against the inner wall thereof, of a rod connected to the center of said curve and moving
70 in the body of the board, a guide having eyes through which said rod is guided, and a pivoted lever connected to the rod and projecting beyond the edge of the board, as and
75 for the purpose hereinbefore set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ALBERT H. JOHNSON.

Witnesses:

F. A. SALOMONSON,
L. L. SPOFFORD.