(No Model.)

R. G. SHILEY.

DRAWING BOARD.

No. 475,350. Patented May 24, 1892.

Fig.1

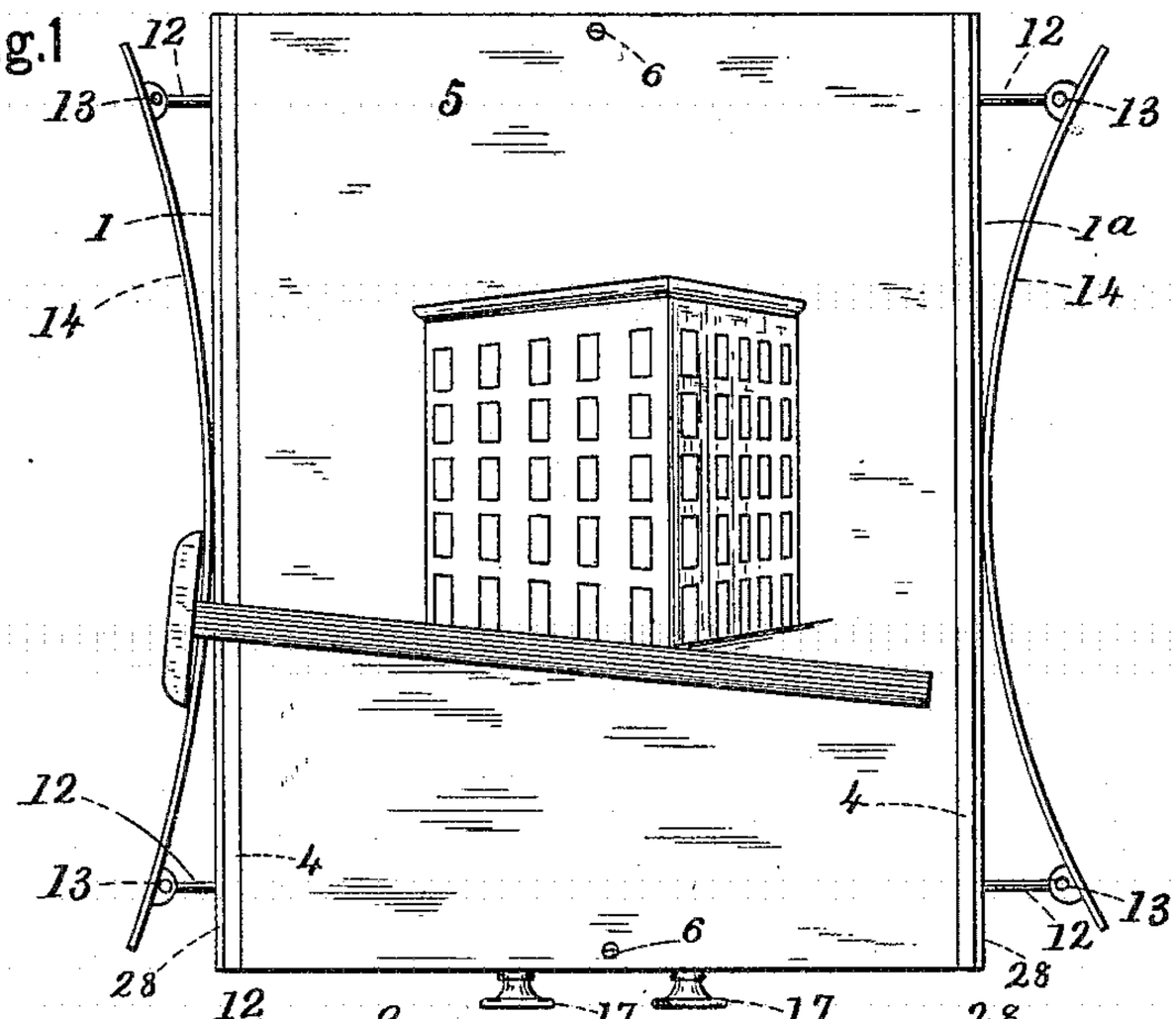

Fig.2

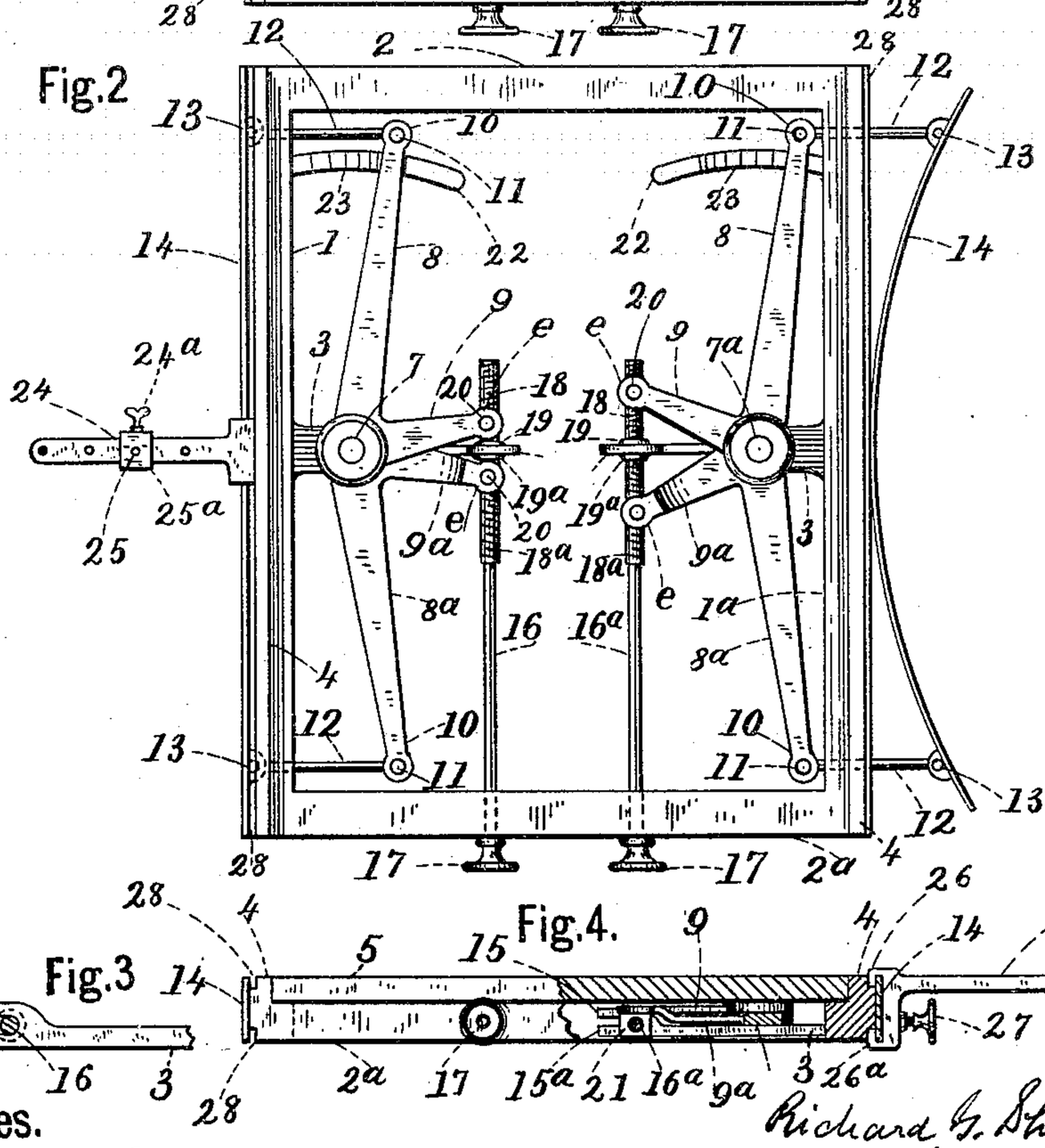

Fig.4.

Witnesses.

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RICHARD G. SHILEY, OF MARIETTA, OHIO.

DRAWING-BOARD.

SPECIFICATION forming part of Letters Patent No. 475,350, dated May 24, 1892.

Application filed March 31, 1892. Serial No. 427,287. (No model.)

To all whom it may concern:

Be it known that I, RICHARD G. SHILEY, a citizen of the United States, residing in Marietta, in the county of Washington and State of Ohio, have invented certain new and useful Improvements in Drawing-Boards, of which the following is a specification.

In drawing in perspective the lines in many instances run to a point beyond the reach of the board upon which the drawing is made, and are consequently difficult to find.

The object of my invention is to avoid this objection by providing a convenient adjustable means for easily getting these angular lines correct when the center point at which they meet is at any point far beyond or at any intermediate point outside of the board, all of which will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a front face view of the board and its holding-frame and connections. Fig. 2 is a similar view, the board being removed so as to expose the operating parts below it. Fig. 3 is a detached side elevation of a portion of the forked bar by which the operating-screws are kept from moving longitudinally. Fig. 4 is an end view of the board and some of its operating parts, a portion being in section to show the construction of some of the mechanism inside.

Referring to the drawings, the frame of the board consists of the two side pieces 1 and 1^a and end pieces 2 and 2^a. It is preferably constructed of wood, as being the lightest and most suitable material, and is provided with two inward-projecting portions 3, located on opposite sides of the frame and directly opposite each other. The side frame-pieces 1 and 1^a are each provided with a projecting rib 4, leaving a slideway between them, in which the board 5 is placed and secured in any well-known way—by pins or screws 6, for instance. To the stationary portion 3 on the inner side of the frame-piece 1 is pivoted by a pin 7 a pair of arms 8 and 8^a, the arm 8 having a short arm 9 formed in one piece with it, and the arm 8^a a short arm 9^a, also formed in one piece with it, and to the opposite frame-piece 1^a is pivoted by a pin 7^a to its supporting portion 3 a similar pair of arms 8 and 8^a, each having a short arm formed in one piece with it, the same as at the opposite side and designated by the same characters. To each of the ends 10 of all the arms 8 and 8^a is pivoted by pins 11 a short connecting-rod 12, the opposite ends of which pass through holes in the side frame-pieces 1 and 1^a and are pivoted by pins 13 to a curved spring 14. The supporting portions 3 project forward toward each other beyond the ends of the short arms 9 and 9^a and are each provided with forked ends 15 and 15^a, substantially as shown in Figs. 3 and 4. Two screw-rods 16 and 16^a pass through holes in one of the end frame-pieces and are each provided at their outside ends with a knob 17, by which they are turned. At the opposite ends the rods 16 and 16^a are provided with right and left screw portions 18 and 18^a, and between the two screw portions are two collars 19 19^a, between which the forked ends 15 and 15^a pass as they travel over the screw-rods, and in this way said rods are kept from moving longitudinally in either direction.

To the under side of each the ends *e* of the short arms 9 and 9^a is pivoted by a pin 20 a block 21. Each block 21 (shown in Fig. 4) is provided with a hole with a screw-thread corresponding with the screw-threads on the screw-rods 16 and 16^a, into which the right and left hand screw portions fit and operate.

Near the top of the frame, projecting inward from the side pieces 1 and 1^a, are rigidly secured two curved bars 22, each having graduated indicating-marks 23 for indicating the point of sight at which the device may be set. (See Fig. 2.)

The removable piece 24 is a device adapted to be used when the point required comes within the space between the center of the smallest circle, of which the spring may be made to form a part, and the edge of the board, the point 25 being used by adjusting its sliding piece 25^a to the desired point and then securing it by the thumb-screw 24^a. This piece 24 is adapted to slide along the springs. I have shown it as provided with two angular portions or jaws 26 and 26^a, which clasp over the edges of the springs. (See Fig. 4, where this is shown.) A set-screw 27 screws it at any point to which it may be adjusted; but this device may be attached to the spring in any well-known way, if desired. It will be

noticed that when it is used the side spring to which it is attached should be drawn down close to the edge of the board, as shown in Fig. 2. It will also be seen that the edges of the frame are cut out at 28 to allow room for the angular portions 26 and 26ª to pass freely back and forth.

The operation of this device will be easily understood from the foregoing description and accompanying drawings, the curve of the spring 14 being made adjustable by means of the knobs 17 for operating the right and left hand screws, and consequently the curved springs 14, as hereinbefore described, so that the T-square shown in Fig. 1 may be moved along the curve of the spring, and the angular lines drawn along its block will all lead to a single point or to the center of a circle, of which the curve of the spring 14 forms a part.

I claim as my invention—

1. In a drawing-board, the combination, with the board, of two curved side springs located at opposite sides of the board, two double arms pivoted to stationary supports on each inner side of the frame-pieces 1 and 1ª, connecting-rods pivotally connecting the ends of the longer portions of said arms with the ends of the springs, rods mounted on the frame having right and left hand screw portions which pass through correspondingly-screw-threaded blocks pivoted to the ends of the shorter portions of said arms, a means for turning said rods, and a means, substantially as above set forth, for preventing the rods from moving longitudinally, for the purposes described.

2. In a drawing-board, the combination, with the board, of a removable portion 24, an adjustable sliding piece 25ª, carrying the point 25, and a means, substantially as above described, for adjusting it to any desired point on the side of the board and securing it thereto, for the purposes described.

3. In a drawing-board, the combination of the board, its side springs 14, the operating-arms pivotally connected with said springs, a means, substantially as above set forth, for giving them their necessary movements, and a curved graduated index-bar for indicating the point of sight, substantially as described.

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Witnesses:
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