

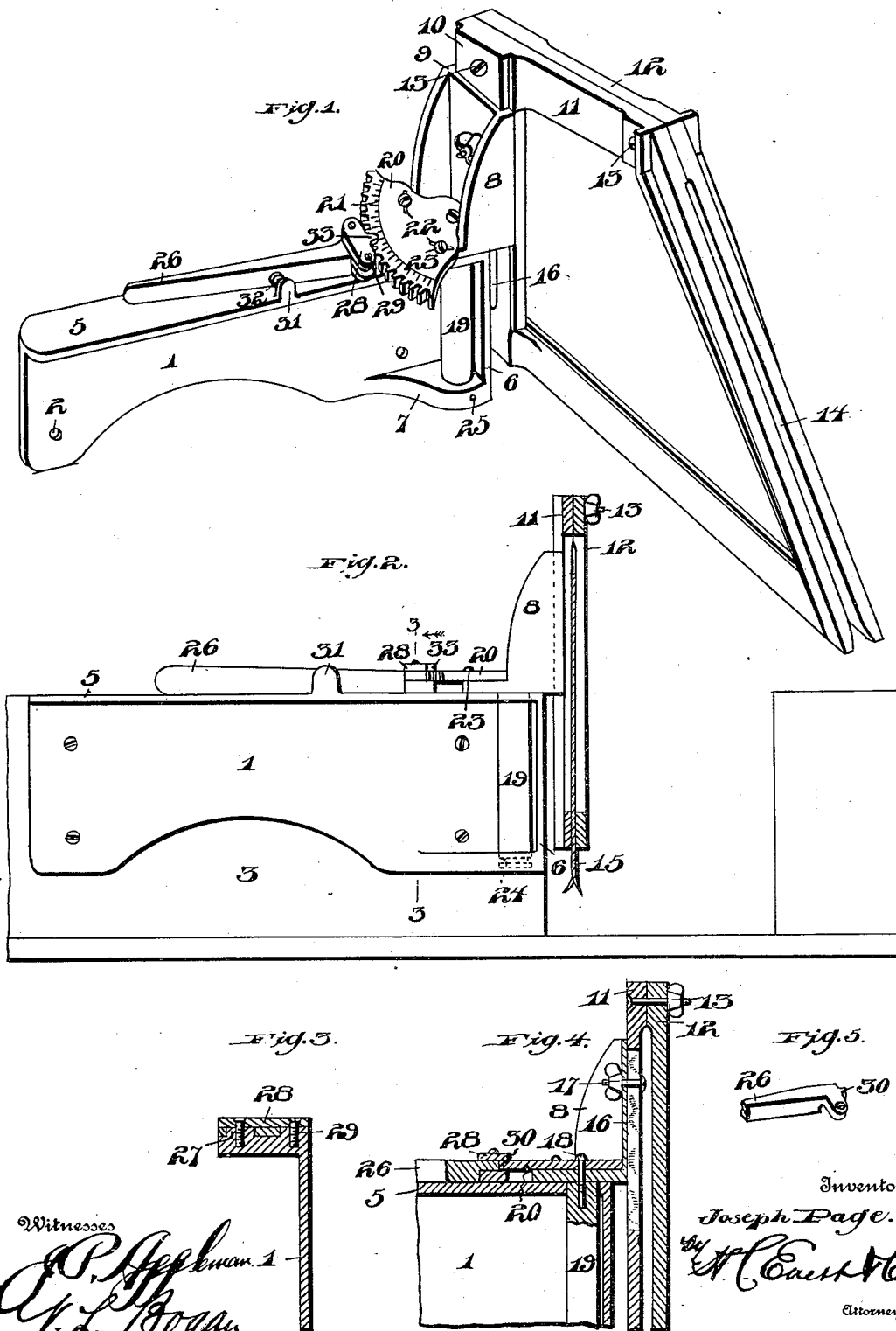
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Patented Jan. 8, 1901.

J. PAGE.
MITER BOX.

(Application filed Apr. 18, 1900.)

(No Model.)



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MITER-BOX.

SPECIFICATION forming part of Letters Patent No. 665,693, dated January 8, 1901.

Application filed April 18, 1900. Serial No. 13,382. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH PAGE, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Miter-Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in saw-guiding devices, and is particularly adapted for use in connection with miter-boxes.

15 The invention aims to construct a saw-guiding device adapted for use in connection with miter-boxes which will enable a saw to be set at any angle desired to cut a board in the preferred manner. Furthermore, the invention aims to provide means for adjusting the saw-guides, as well as means for locking the same at the desired angle.

20 Briefly described, the invention consists of a supporting-plate secured to the side of a miter-box and to which are suitably connected saw-guides to permit of the same swinging to the point desired and a segmental rack adapted to be engaged by a lock-lever for securing the saw-guides in proper position.

25 The invention finally consists in the novel construction, combination, and arrangement of parts, to be hereinafter more fully described, and specifically pointed out in the claims.

30 In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate corresponding parts throughout the several views, in which—

35 Figure 1 is a perspective view of my improved saw-guiding device. Fig. 2 is a side view thereof as secured to a miter-box, showing the guides in vertical section. Fig. 3 is a transverse vertical sectional view taken on the line 3 3 of Fig. 2. Fig. 4 is a cross-sectional view of my improved saw-guiding device broken away at the bottom and one side thereof. Fig. 5 is a perspective view of the end of the lock-lever.

40 Referring to the drawings by reference-numerals, 1 indicates a supporting-plate provided with the openings 2 to receive means

for securing the plate to a miter-box, (indicated by the reference-numeral 3.) The plate is further provided at its top with a supporting-ridge 5 and at one end with a web 6, connecting the ridge 5 to the bearing-lug 7, formed integral with one corner of the plate, as shown.

55 Mounted upon one end of the ridge 5 is a bracket 8, having flanges 9 formed integral therewith, between which operates an offset 10, formed upon one of the saw-guides 11. The reference-numeral 12 indicates the other saw-guide. These saw-guides are secured together at their top by means of screws or other fastening means 13, and the inner face of each is cut away, as at 14, to form a passage-way for the saw 15. The said saw-guides are each constructed in a skeleton manner, although solid guides may be used, if desired, but one of which must be provided with an offset similar to the offset 10. The saw-guide 11 is provided with a vertical slot or opening 16, in which operates an adjusting set-screw 17. This screw also operates through the bracket 8, as shown. A roller 19 is journaled in the lug 7 and the ridge 5 and has the bracket 8 connected thereto by a pin 18, which also secures in position a segmental rack 20, provided on its upper face with a suitable scale 21. The segmental rack 20 has a pair of slots 22 formed therein for limiting the movement of the former by means of the set-screws 23. The lower end of the roller 19 is grooved, as at 24, and secured in position upon the lug 7 by means of the cotter-pin 25, arranged in the bearing and extending into the groove of the shaft. The segment-shaped rack is used for positioning the saw-guides to obtain the desired cut and is held in position by means of a lock-lever 26, mounted upon the bushing 27 and secured in position on a retaining-plate 28 by means of screws 29. The lock-lever is provided with a lug 30 to engage the teeth of the rack and lock the same in position.

85 The reference-numeral 31 indicates a stud formed integral with the ridge 5, carrying a bearing-spring 32, which bears against one side of the lever 26 to keep the lug 30 in engagement with the rack.

90 The reference-numeral 33 indicates a projection formed integral with the retaining-

plate 28 to keep the rack 20 upon the same plane.

The operation of my improved saw-guiding device is as follows: The same being secured in position, as shown in Fig. 2, to a miter-box, the rack is released from its engagement with the lug 30 and the guides are moved to the desired position and the rack locked by the engagement of the lug 30 therewith. The guides are adjusted vertically by means of the set-screw 17.

It is thought the many advantages of my improved device can be readily understood from the foregoing description, taken in connection with the accompanying drawings, and it will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

1. In a device of the character described, the combination with the supporting-plate having a ridge extending along its upper edge and an integral bearing-lug formed at one of its lower corners, of a roller journaled in said ridge and lug, a bracket mounted upon the upper end of said roller, a vertically-adjustable saw-guide carried by said bracket, a segmental-shaped rack mounted upon the bracket and rigidly connected through the bracket to the roller, and a locking-lever mounted upon the supporting-plate and en-

gaging said rack for locking the guides in the desired position, substantially as described.

2. In a saw-guiding device, the combination with the supporting-plate and the roller carried thereby, of a pair of saw-guides secured together, a bracket mounted upon said roller and to which said saw-guides are secured, means for adjusting said guides vertically in the bracket, a rack mounted upon the bracket and rigidly secured through the same to the roller, means for limiting the movement of said rack and means mounted upon the supporting-plate and engaging said rack for locking the same in the desired position, substantially as described.

3. The combination of the supporting-plate having the ridge and the bearing-lug, the roller journaled in said ridge and lug, the bracket 8 mounted upon said ridge, the segmental rack mounted upon the bracket, the rack and the bracket being secured to the upper end of the roller by a common pin, the spring-actuated locking-lever mounted upon the ridge and engaging said rack, and the vertically-adjustable saw-guides carried by said bracket, substantially as herein shown and described.

In testimony whereof I affix my signature in the presence of two witnesses.

JOSEPH PAGE.

Witnesses:

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