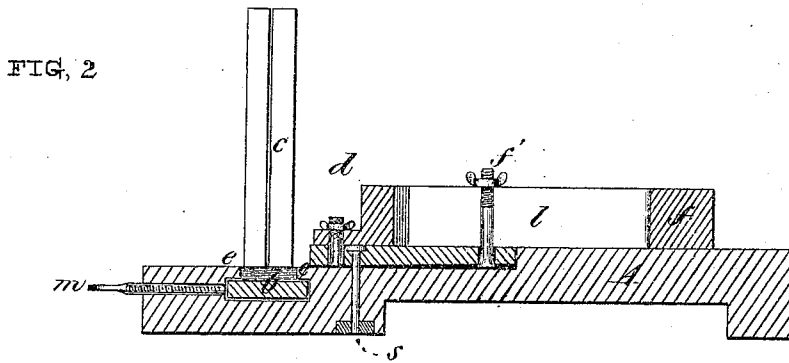
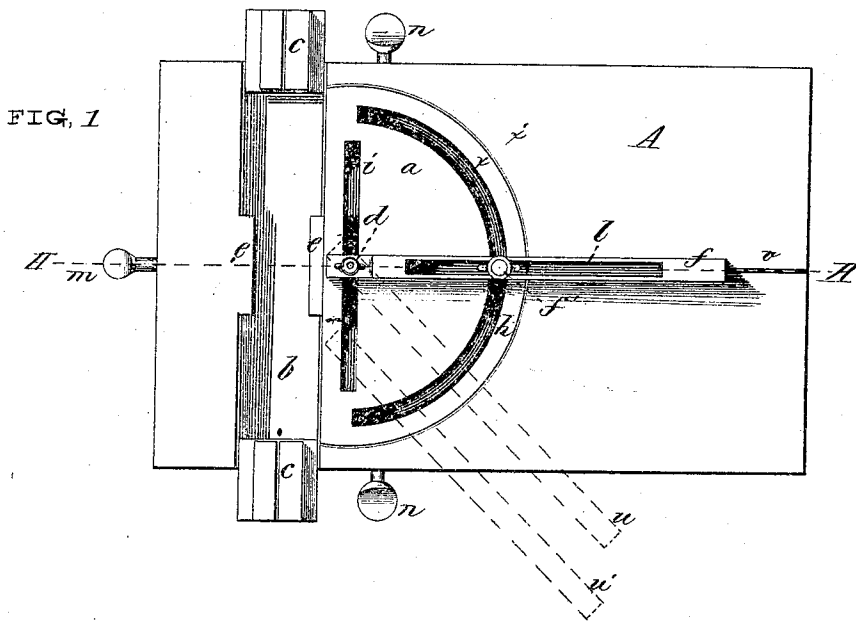


J. KING.

Improvement in Miter-Boxes.

No. 128,963.

Patented July 16, 1872.



Witnesses,  
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# UNITED STATES PATENT OFFICE.

JAMES KING, OF NORTHAMPTON, MASSACHUSETTS.

## IMPROVEMENT IN MITER-BOXES.

Specification forming part of Letters Patent No. 128,963, dated July 16, 1872.

*To all whom it may concern:*

Be it known that I, JAMES KING, of Northampton, in the county of Hampshire and State of Massachusetts, have invented a new and useful Improvement in Miter-Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification and to the letters of reference marked thereon, in which—

Figure 1 is a plan view of my invention, and Fig. 2 is a longitudinal section through line H of Fig. 1.

My invention relates to a device for making miters, and consists of a semicircular plate pivoted at the center to a recess in a platform or table, so that it may be turned upon its pivot in either direction. A straight groove is made across the line of diameter of the plate in which to insert a bolt or pivot having a head or flange upon the lower end, and a circular groove is also made near the outer edge of the plate. A lever having a longitudinal vertical slot made therein is attached at one end to the bolt or pivot which operates in the straight groove, and this lever has a bolt extending through the slot, said bolt moving in the circular groove and having a head or flange on the lower end and a thumb-nut on the upper end. The pivot upon which the lever swings has also a thumb-nut upon its upper end, so that the lever may be changed from one side to the other of the half-circle plate by merely loosening the thumb-nut on top and moving the pivot in the straight groove to its desired position and then tightening the screw again, and the lever may be firmly fastened to the semicircular plate at any desired angle by loosening the thumb-nut upon the bolt which moves in the circular groove, moving the lever to its desired position, and then tightening the thumb-nut again; and the half-circular plate may be secured in any desired horizontal position by turning in a thumb-screw against the edge of the plate. A groove is made in the upper surface of the table or platform in which slides a piece having the saw-guides attached at each end, and this may be secured in any desired position by turning in a thumb-screw against its edge.

That others skilled in the art may be able to make and use my invention, I will proceed to describe its construction and operation.

In the drawing A represents the table or platform having a semicircular recess made therein, in which is placed the semicircular plate *a*, which is pivoted to the pin *s* so as to turn freely thereon. A straight slot, *i*, is made in said plate, and the lever *f*, having the vertical longitudinal slot *l* therein, is pivoted in the straight slot *i* by means of the pivot *d* having a flange or head upon the lower end and a thumb-nut upon the upper end. A semicircular slot, *h*, is made in the plate *a*, described from the pivot *d* as a center, and a bolt, *f'*, extends down through the slot *l* in the lever and also through the semicircular slot *h*, said bolt having a head or flange upon the lower end by which it is confined in the slot and a thumb-nut on the upper end. Two thumb-screws, *n*, one on each side, operate through threaded holes in the edge of the table and against the edge of the plate *a*, by means of which said plate may be confined in any desired position. A groove is made across the table, in which is fitted a piece, *b*, having the two upright saw-guides *c* secured thereto, which may be moved to and fro in the groove, and may be secured in any position desirable by the set-screw *m*.

The operation of my invention is as follows: If it is desired to saw the stuff square across the lever *f* is placed upon the center line at H and the thumb-nut on the pivot *d*, and the nuts on the bolt *f'* are both tightened, securing the lever in that position, and the semicircular plate *a* is secured in position with the line *x* on the plate, and the line *x'* on the table coinciding by turning in one of the set-screws *n*; and the saw-guides *c* are secured in position by the set-screw *m* being turned in against the piece *b*, all shown in Fig. 1. The stuff, then placed against either side of the lever, may be sawed square across. If it is desired to saw the stuff to miter at an angle of forty-five degrees, the plate *a* is turned so that the line *x* on the plate will coincide with the center line H on the table, and secured in that position by one of the set-screws *n* at the side. This brings the lever in the position shown in dotted lines at *u* at an angle of forty-five degrees to the saw-guides *c*, and the stuff may be sawed at that angle; or, instead of moving the plate *a*, said plate may be still secured in position shown in Fig. 1, and the thumb-nut on the bolt *f'* may be

loosened and the lever moved on the plate into the position shown in dotted lines at *u*, the bolt *f'* sliding around in the slot *h*, and the lever is then secured in that position by tightening the thumb-nut; and the plate *a* or the lever *f* may be moved and secured into any other position desired to saw stuff at any other required angle.

The capacity of the device may be very much enlarged for the purpose of sawing large stuff, and this is an important feature of my invention. As arranged in Fig. 1, of course no stuff can be sawed except such as can be laid in between the lever *f* and one of the saw-guides *c*; and for sawing small stuff this is an advantage, as the guide *c* is near the stuff and there is less liability to variation. If larger stuff is to be sawed the saw-guides *c* are moved to one side by sliding the piece *b* along in its groove to its position, and the thumb-nuts on the bolt *f'* and pivot *d* are both loosened and the lever moved to the position shown in dotted lines at *u'*, the plate being still secured in the position shown in Fig. 1; or the lever may be secured in position, as shown in Fig. 1, and the plate *a* be turned to an angle of forty-five degrees and secured by one of the set-screws *n*, as may be most convenient. This device

may be attached with great advantage to a movable platform upon a circular saw-table, a slot or saw-guide being made at *v* extending in nearly to the plate *a*, dispensing with the saw-guides *c*; then, by securing the lever in a position upon the plate *a* opposite to that shown in dotted lines at *u*, and placing a piece of wood having straight parallel edges against the lever, and the stuff to be sawed against that, any required angle may be sawed by pushing the platform having the table *A* thereon up to the saw. Of course a circular plate, instead of a semicircular one, may be used by placing the saw-guides at a sufficient distance from the circle to turn it without departing from the principle of its operation.

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

An improved miter-box, consisting of the table *A*, pivoted plate *a*, lever *f*, and movable saw-guides *c*, all constructed and operating substantially as specified.

JAMES KING.

Witnesses:

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