

(No Model.)

M. C. PATRICK.
MITER BOX.

No. 414,655.

Patented Nov. 5, 1889.

Fig. I.

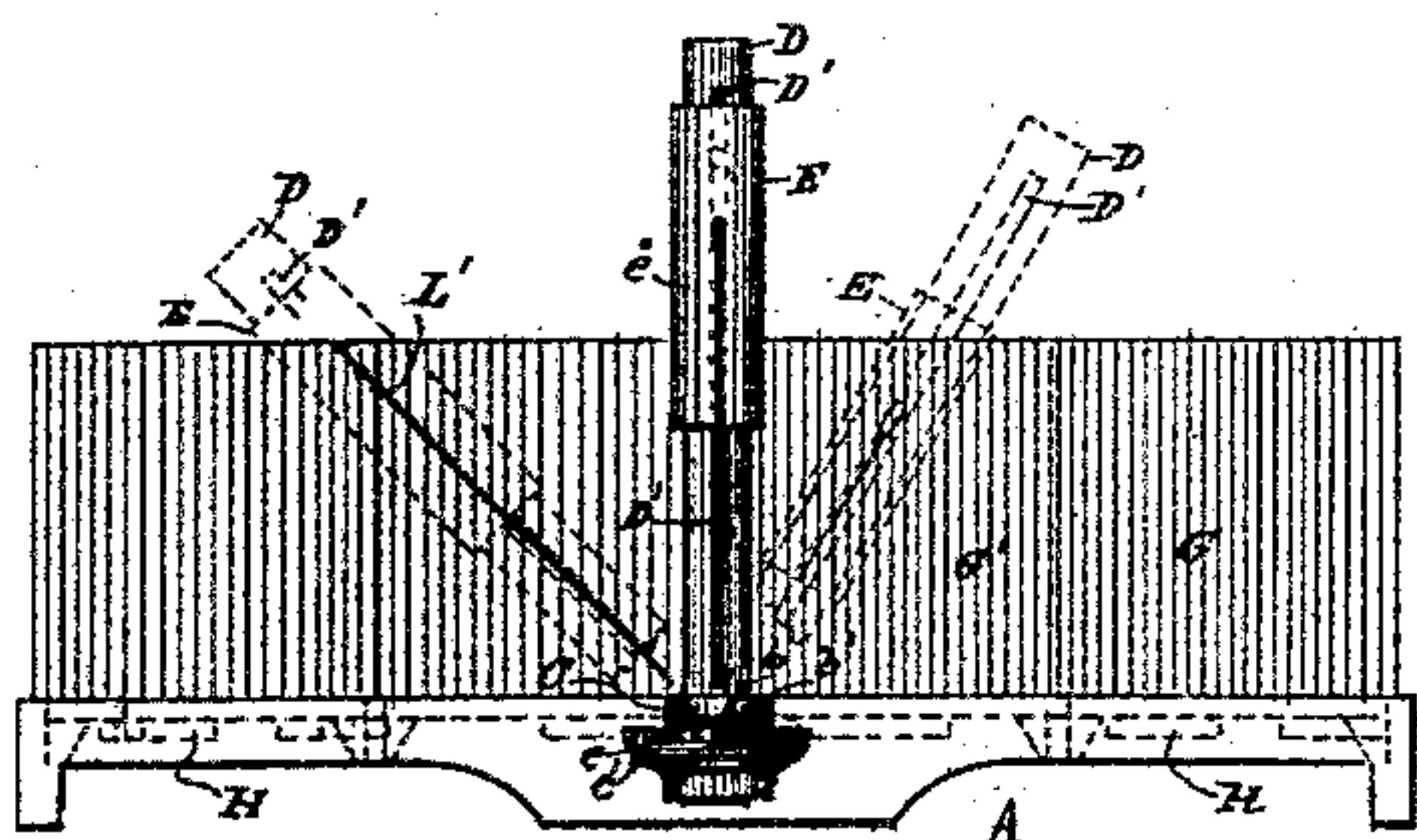


Fig. II.

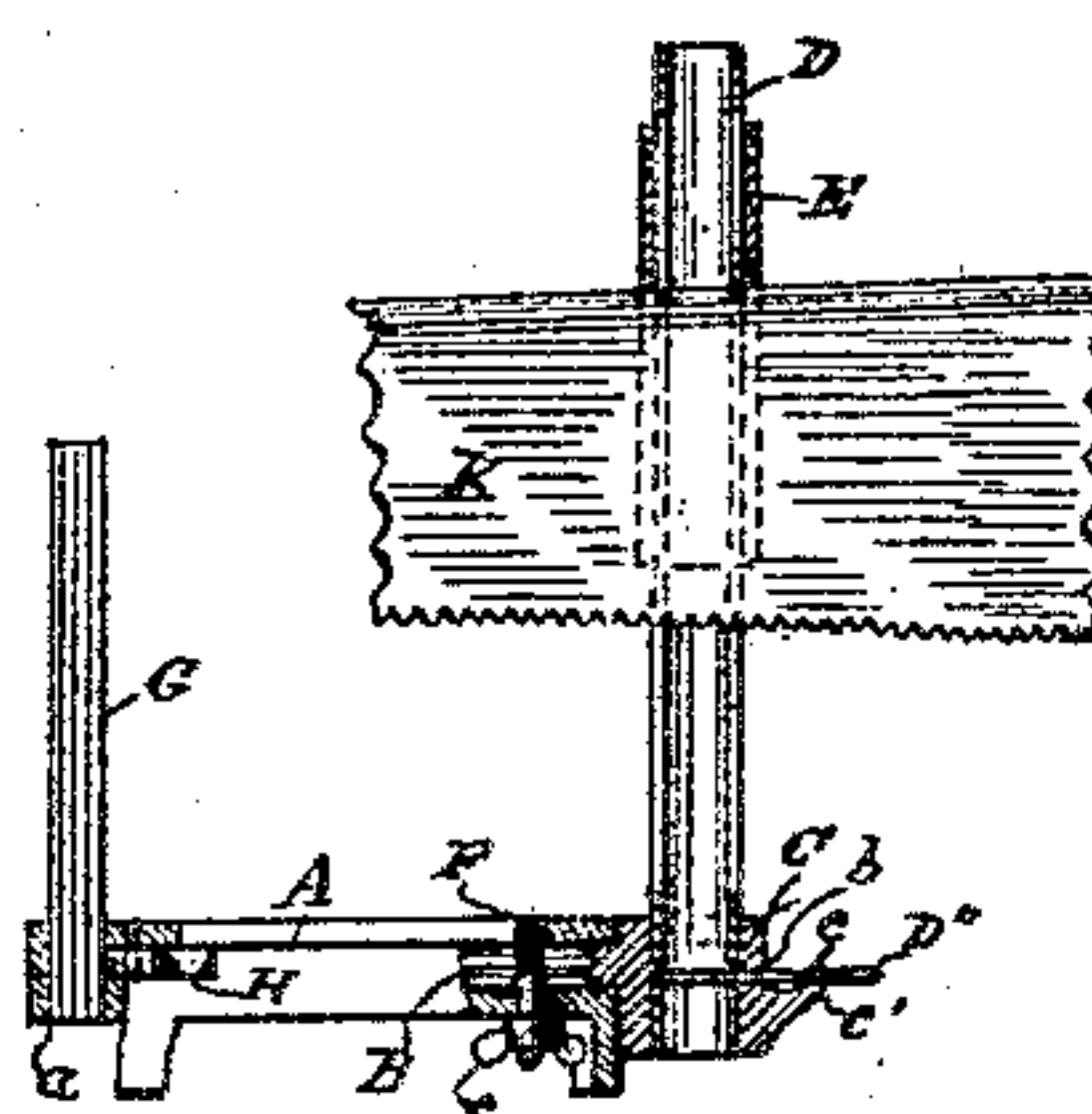
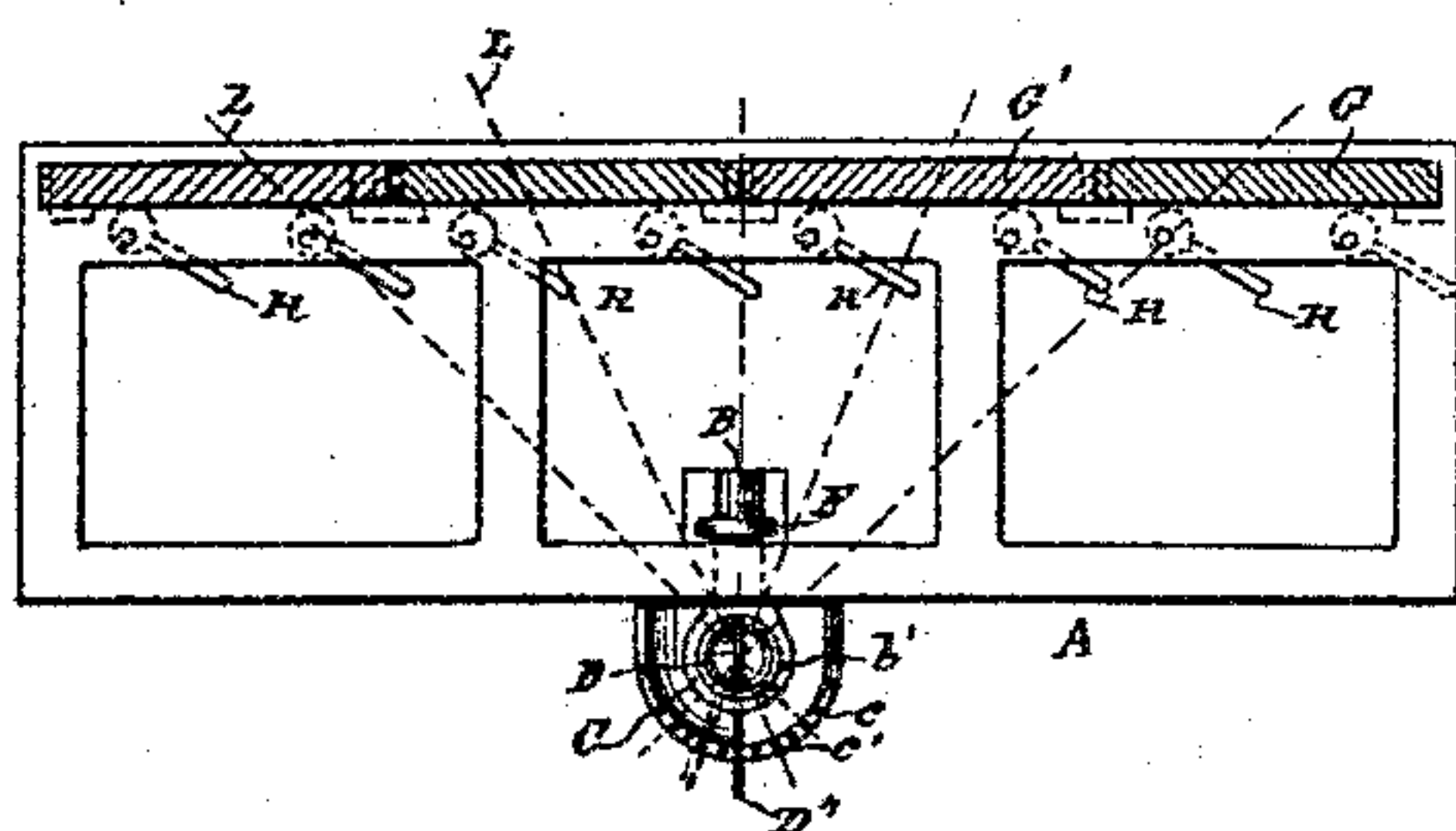


Fig. III.



Witnesses

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MARCUS C. PATRICK, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR TO CHARLES E. BOND AND ROBERT WILLIAMS, OF SAME PLACE.

MITER-BOX.

SPECIFICATION forming part of Letters Patent No. 414,655, dated November 5, 1889.

Application filed March 18, 1889. Serial No. 303,654. (No model.)

To all whom it may concern:

Be it known that I, MARCUS C. PATRICK, a citizen of the United States, and a resident of the city of Minneapolis, county of Hennepin, State of Minnesota, have invented a certain new and useful Improvement in Miter-Boxes, of which the following is a specification, reference being had to the accompanying drawings.

The primary object of my invention is to provide a miter-box of simple construction which will permit cuts to be made at any angle to the horizontal as well as to the vertical plane with any kind of a handsaw. To this end I mount in a suitable frame a saw-guide having a universal adjustment. In other words, the saw-guide is pivoted in both the vertical and the horizontal planes and is movable laterally on its supporting-frame. I also provide a sectional backing for the miter-box, each section being removably secured in the supporting-frame.

In the drawings, like letters referring to like parts, Figure I is a side elevation, Fig. II a cross-section, and Fig. III a plan, of my invention.

A is the supporting frame-work or bed of the miter-box.

B is a horizontal shaft mounted in a suitable bearing on the front side of the same and provided with a vertical socket C, having horizontal and vertical slots *b* and *b'*, respectively, and an annular ratchet *c* on a flange *c'*, projecting from the front side of the socket C.

D is a vertical post mounted in the socket C as a seat, provided with a vertical slot *D'* of sufficient width for a saw-blade and its set, with or without backing, and having a laterally-projecting pin *D''*, working in the horizontal slot *b* and engaging with the ratchet *c* for securing the post at any desired position in its seat with reference to a vertical plane through its axis at right angles to the bed A.

E is a sleeve loosely mounted on the post D and having a vertical slot *e* therein enlarged

laterally at its upper end for the passage of the back of the saw.

F is a yoke inclosing the shaft B and having a stem passing through a part of the frame A, and fitted with a set-screw or eccentric *f*, for clamping the shaft fast to the frame at any desired point.

G G', &c., are wooden sections composing the sectional backing of the miter-box, each of which is removably mounted in a groove or seat *a*, secured to the rear part of the bed A. These sections may be secured in their positions in any suitable way, as by the eccentric-cams H.

K represents part of a saw-blade in position on the post D.

The operation is evident. In virtue of the fact that the post D is pivoted in the socket C, the slot *D'* may be drawn to any angle with reference to the vertical plane, and in virtue of the fact that the shaft B, with its socket C, turns freely on its bearing the post D may be turned to any angle with reference to the horizontal plane and be secured therein by the yoke F and its set-screw *f*. The material to be mitered is placed on the bed A between the post and the backing G G'. The shaft B and the socket C may be moved outwardly on the frame A, permitting the passage of wider or narrower material on the bed A. It is evident that mitering can be done at any angle with this construction.

The lines L represent kerf-lines at an angle to the vertical plane, and L' kerf-lines at an angle to the horizontal plane.

The sectional backing is an important improvement, as any section can be removed and new sections substituted without disturbing the others. It seldom happens that a backing will wear out equally at all points.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. The combination, with a miter-box, of a saw-guide-supporting post provided with a projecting pin and a socket for receiving said post having a notched flange and a projecting shaft, substantially as set forth.

2. The combination, with the supporting frame-work, of a horizontal shaft, a vertical socket having slots, as set forth, and a ratchet and a saw-guide mounted in the
5 socket having a projecting pin, substantially as specified.

3. The combination, with the supporting frame-work A, of vertical socket C, having

horizontal shaft B and annular ratchet-flange c c', vertical slotted post D, provided with 10 laterally-projecting pin D'', sleeve E on said post, and yoke F, substantially as set forth.

MARCUS C. PATRICK.

In presence of—

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