No. 771,668. PATENTED OCT. 4, 1904.

J. W. SCHATZ.

MITER BOX.

APPLICATION FILED JAN. 16, 1904.

NO MODEL.

Fig. 1.

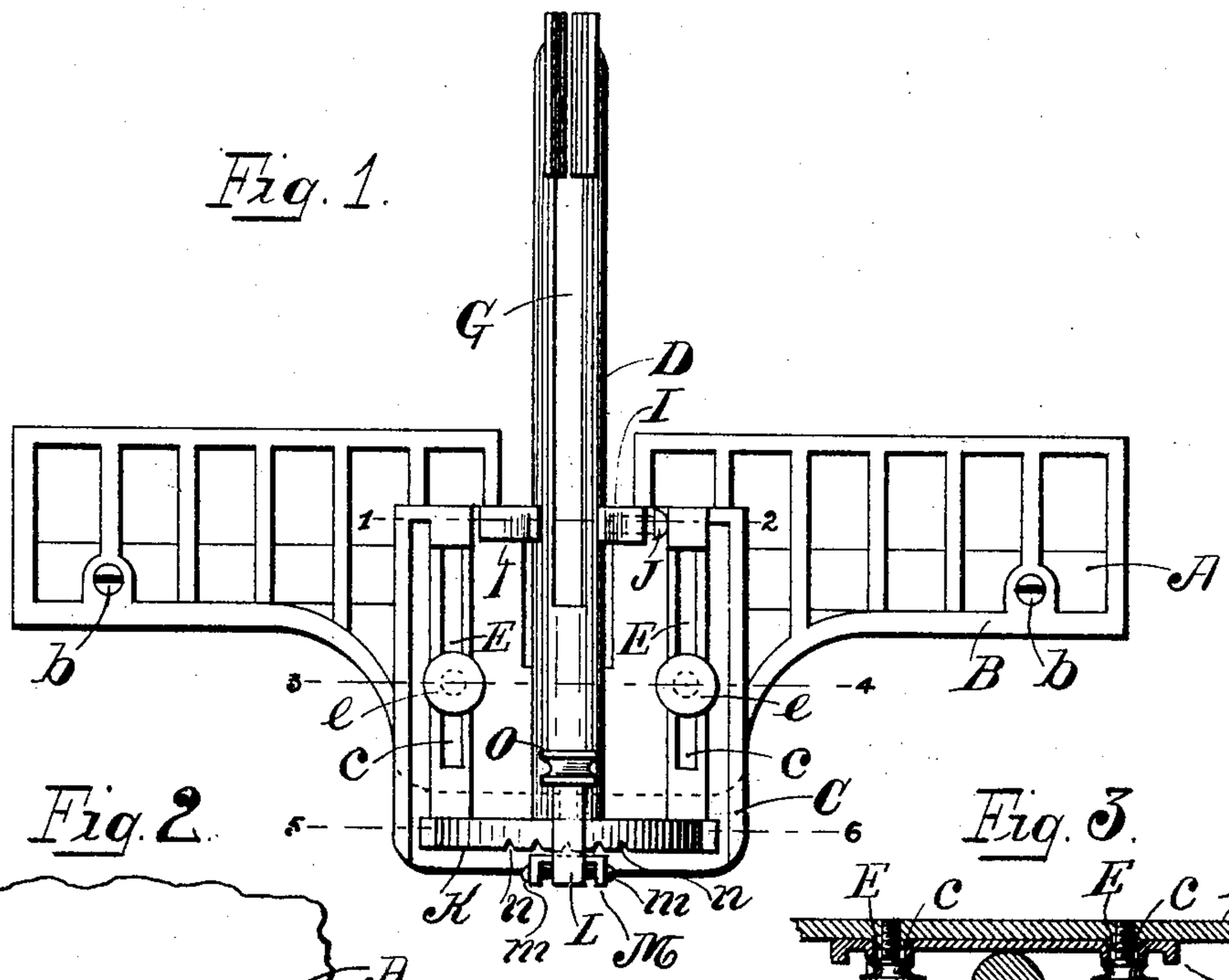

Fig. 2.

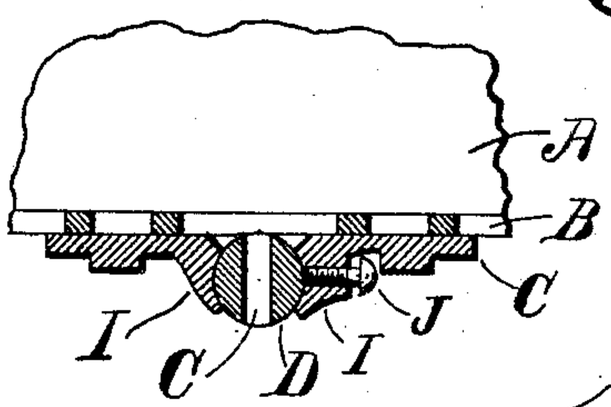

Fig. 3.

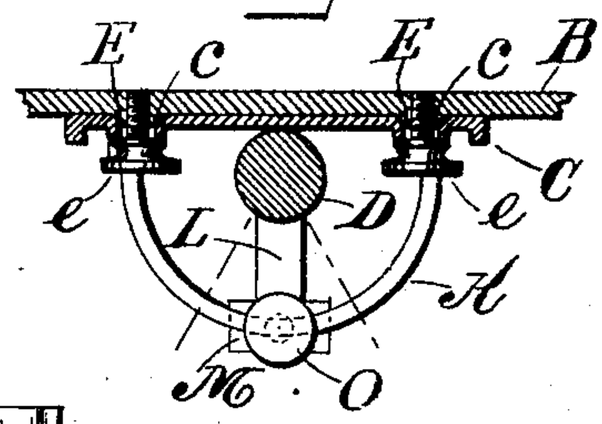

Fig. 5.

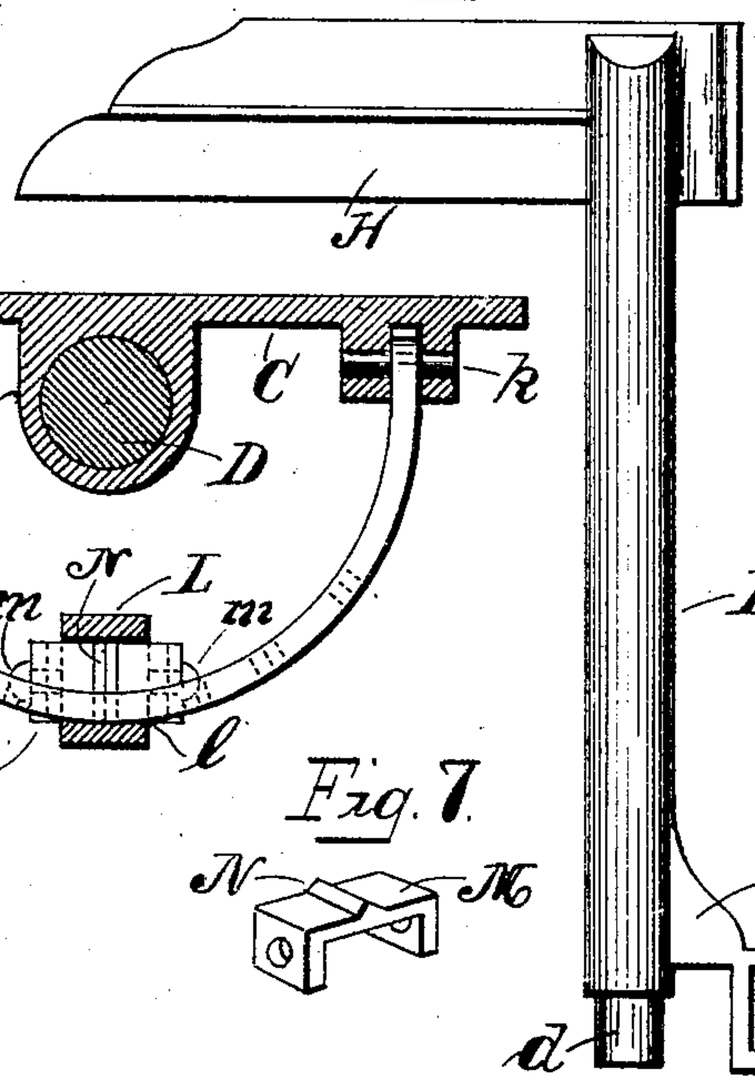

Fig. 4.

Fig. 6.

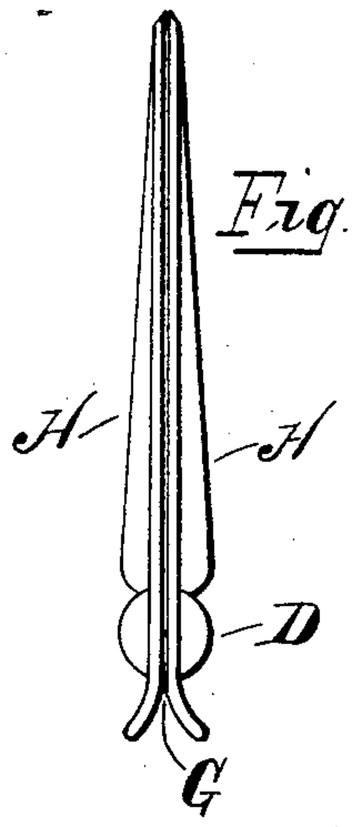

Fig. 7.

WITNESSES:

F. J. Coleman

M. Oline Williams.

INVENTOR

John William Schatz

BY Beach & Fisher,

ATTORNEYS.

No. 771,668. Patented October 4, 1904.

UNITED STATES PATENT OFFICE.

JOHN WILLIAM SCHATZ, OF NEW HAVEN, CONNECTICUT.

MITER-BOX.

SPECIFICATION forming part of Letters Patent No. 771,668, dated October 4, 1904.

Application filed January 16, 1904. Serial No. 189,337. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIAM SCHATZ, of the city and county of New Haven, State of Connecticut, have invented a new and useful Improvement in Miter-Boxes, of which the following is a full, clear, and exact description when taken in connection with the accompanying drawings, which form a part thereof, and in which—

Figure 1 represents a front elevation of a miter-box embodying my invention. Figs. 2, 3, and 4 represent horizontal sections on lines 1 2, 3 4, 5 6, respectively, of Fig. 1. Fig. 5 is a side elevation in detail of the post, guides, and locking device. Fig. 6 is a top view of the same, and Fig. 7 an enlarged perspective view in detail of the locking-shoe.

In all figures similar letters of reference represent like parts.

This invention relates to miter-boxes, and has for its object the production of a novel, efficient, yet simple miter-box containing the various improvements and combinations of parts set forth and claimed hereinafter.

Referring to the drawings, the parts designated by the letter A represents the body of the box; B, the frame secured thereto by screws *b* or other suitable means.

C represents a vertically-adjustable slide mounted on the frame B and carrying the post D. The slide C is provided with two vertical slots or ways *c* on either side of the post D when the latter is properly mounted on the frame C. In the slots *c* project vertical longitudinally-beveled flanges or shoulders E, (shown more clearly in Figs. 1 and 3,) whereby the movement of the slide C is made exactly vertical. Set-screws *e* extend through the slots or ways *c* and take into the shoulders E and are adapted to bind the slide C at any desired height upon the frame B.

On the lower end of the slide C is a socket F, into which the post D is set or pivoted to swing in a horizontal plane. The post D is longitudinally slotted or bifurcated, as shown at G, Figs. 1 and 2, and at the upper end of each of the tines of the post are secured or integrally formed guides H for the saw of the operator. The space between the guides or width of the slotted portions of the post D is regulated as follows: At the upper end of the slide C is a bearing or bearings I for the post D, and through the bearings projects a screw J. As the slot of the post D extends below the bearing I when the screw J is screwed in to bear against one of the slotted members of the post D, the two members are forced together and the slot G and space between the guides H contracted for the more exact fit of a narrow saw. To receive a wider saw, it is only necessary to unscrew the screw J, whereupon the natural resiliency of the metal composing the post D will separate the guides H.

To the lower end of the slide C is pivoted at the points *k* a semicircular bow or band K. A wing L is rigidly secured to or formed integral with the lower portion of the post D and has a transverse perforation *l*, adapted to embrace or take into it the bow K. Extending through the lower part of the perforation *l* is a locking-shoe M, held in place by screws *m*, binding against the sides of the wing L. On the upper side of the shoe M is a flange N of such size as to fit into any one of a number of indentations *n* on the under side of the bow K. The indentations or notches *n* are arranged as desired to adjust, by means of the flange N, wing L, and post D, the guides at the desired angle to the vertical frame B of the miter-box. A set-screw O, extending into the upper portion of the perforation *l*, is adapted to bind the bow K against the flange N to hold it securely in the desired adjustment.

The operation of the miter-box is as follows: A strip of wood or other material to be cut is placed on the bed A of the frame B. The slide C is raised or lowered to the desired height for the saw and secured by means of the set-screws *e*. The screw O being loosened permits the bow K to be swung up, so that the notches *n* are clear of the flange N, and the guides H, post D, and wing L being formed integral or rigidly connected are swung on the pivot of the post D, so that the guides H extend across the wood at the desired angle. When the bow K is lowered, the flange N will take into the proper notch *n*. The set-screw O being screwed down will hold the guides H in this adjusted position. For any nice varia-

tions the screws *m* on the opposite sides of the wing L may be tightened or loosened to move the wing L slightly in relation to the flange N on the shoe M. By means of the screw J, as pointed out above, the slot G and the space between the guides H may be adjusted for the width of saw to be used. The whole device thereby provides an exact, simple, and efficient means for the use of any desired saw.

It is evident that as my invention consists of a number of improvements in miter-boxes any one or more of these improvements may be used without the other.

Having now described my invention, which may vary in its details without departing from the spirit thereof, what I claim, and desire to secure by Letters Patent, is—

1. In a miter-box, the combination with the frame; of a vertically-adjustable support; a rotary post having a pivotal connection at its lower end to swing in a horizontal plane on said support, and longitudinally slotted through the entire length of the portion above said support; and guides for the saw carried at the upper end of said post, substantially as described.

2. In a miter-box, the combination with the frame; of a vertically-adjustable support; a rotary post longitudinally slotted at its upper end, and having a pivotal bearing in said support below said slotted portion, and further bearings in said support for both of the prongs of the slotted portion, substantially as described.

3. In a miter-box, the combination with the frame; of a vertically-adjustable support; a rotary post longitudinally slotted at its upper end, said support having a socket for the lower end of said post, and a bearing for the upper slotted portion, substantially as described.

4. In a miter-box, the combination with the guides for the saw; of a slotted post carrying the same; a vertically-adjustable support for said post, in which said post may rotate; and mechanism carried by said support for contracting the slot in said post, substantially as described.

5. In a miter-box, the combination with a post slotted at its upper end; of guides for the saw integrally formed with both prongs of the slotted end of said post; a support for said post carrying a particircular bow pivoted at both ends to said support; and a wing or projection rigidly connected to said post, having an opening adapted to embrace said bow, substantially as described.

6. In a miter-box, the combination with a rotary member carrying the guides for the saw; of a support with which said member has a pivotal connection; a particircular bow or band pivotally mounted at both ends on said support to swing vertically; and a wing secured to said rotary member for taking over said bow, substantially as described.

7. In a miter-box, the combination with the frame; of a support vertically adjustable thereon, having a socket; a rotary post whose lower end is adapted to fit in said socket, and whose upper end is slotted throughout the entire portion above said support; means carried by said support for contracting the slot of said post; a particircular bow pivotally mounted on said support to swing vertically; a wing or projection rigidly secured to said post having an opening adapted to embrace said particircular bow; and guides for the saw carried by both prongs of the slotted portion of the post, substantially as described.

8. In a miter-box, the combination with a rotary member carrying the guides for the saw; of a support with which said member has a pivotal connection; a particircular bow mounted on said support; a wing or projection secured to said rotary member; and a shoe adjustable horizontally on said wing or projection and adapted to engage said bow; and means for locking said shoe in engagement with said bow, substantially as described.

In witness whereof I have hereunto set my hand on the 11th day of January, 1904.

JOHN WILLIAM SCHATZ.

Witnesses:
M. OLIVE WILLIAMS,
SAMUEL H. FISHER.