

(No Model.)

C. B. HALL.
MITER BOX.

No. 590,979.

Patented Oct. 5, 1897.

Fig. 1

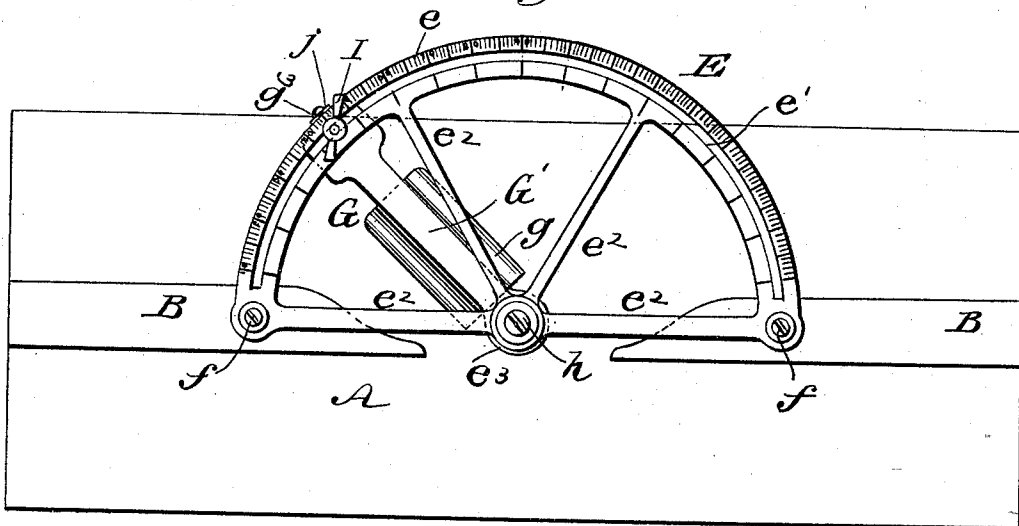


Fig. 2

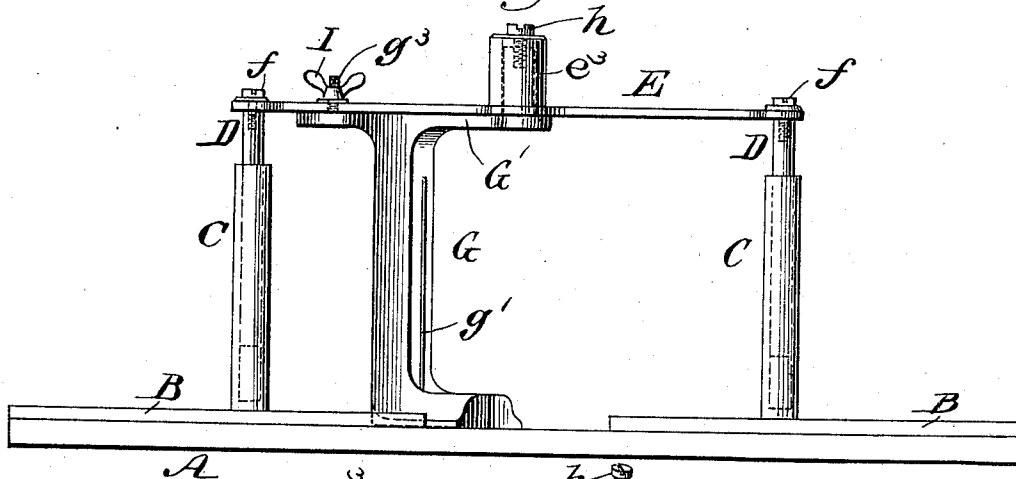
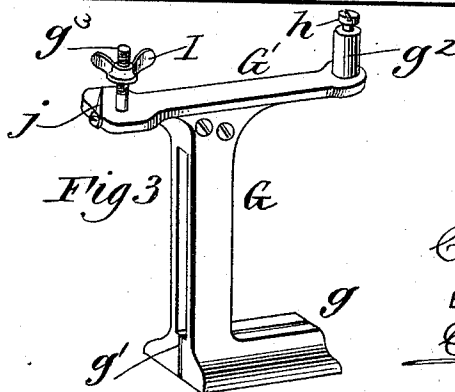


Fig. 3



WITNESSES:
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UNITED STATES PATENT OFFICE.

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MITER-BOX.

SPECIFICATION forming part of Letters Patent No. 590,979, dated October 5, 1897.

Application filed December 17, 1896. Serial No. 615,976. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BADGER HALL, a citizen of the United States, and a resident of Governor's Island, State of New York, have invented certain new and useful Improvements in Miter-Boxes, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to that class of miter-boxes which embody a graduated segmental guide with relation to its saw-guide, which is adjustable.

The object of my invention is to provide a simple and improved device of this character which can be more quickly and conveniently adjusted, which will be especially adapted for effective use in connection with various thicknesses of wood, which will enable the cutting of any thickness of wood equal to the saw being used and any width of wood equal to the length of the saw used, which will be adapted to operate from either side of the box, which can be used with either an ordinary crosscut-saw or with a back-saw by simply changing the saw-guide, and which will furthermore possess advantages in point of accuracy, convenience, ease of adjustment, effectiveness, and general efficiency.

In the drawings, Figure 1 is a top or plan view of the apparatus. Fig. 2 is a side elevation. Fig. 3 is a detail perspective view of the saw-guide detached.

Referring to the drawings, A designates a base-plate having a double straight-edge B, centrally and longitudinally arranged and projecting above the surface of the base-plate, as shown, said edge being designed to support the wood to be cut.

C C designate two tubular standards, which are oppositely arranged on a longitudinal plane with relation to the double straight-edge and are adapted to receive corresponding standards D D, projecting downwardly from the guide-frame E. I prefer to form the base-plate, straight-edge, and tubular standards of iron or other metal, and these parts may be cast integrally, as shown.

The guide-frame E comprises a segmental plate, which may be semicircular, (see Fig. 1,) having graduations *e* upon its top face and

provided with a central longitudinal slot *e'*. At the termini of the graduated guide-plate the standards or posts D D are respectively arranged, and the latter are preferably connected with the guide-plate by means of screws *f*. It will be understood that the guide-frame is vertically adjusted with relation to the wood to be cut, the standards or posts D D being adapted to slide within the retaining tubular standards C C. The guide-frame E embodies a series of radial arms *e*², extending from a common center.

G designates an adjustable saw-guide, which comprises a flat base or foot *g*, adapted to bear or rest upon the wood to be cut. The saw-guide is provided with a vertical slot *g'*, corresponding to and adapted to receive the saw-guide. The saw-guide carries at its top a transverse arm *G'*, adapted to extend radially with relation to the guide-frame and having its inner end pivotally connected with the latter at the common center of the radial arms *e*², preferably by means of an upwardly-projecting post or stud *g*², received in a tubular hub or bearing-box *e*³ upon the guide-frame and secured by set-screw *h*. The outer end of the top arm of the saw-guide carries an upwardly-projecting threaded pin *g*³, working in the slot *e'* and carrying a thumb-nut I, by which the saw-guide may be clamped in adjusted position. At the outer end of said top arm *G'* may be also provided a pointer or finger *j*, operating with relation to the periphery of the graduated segmental guide-plate. The guide-frame and saw-guide are also preferably formed of iron or other suitable metal.

The operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains.

The device is especially adapted for quick and convenient adjustment, is adapted to various thicknesses and sizes of wood, and can be effectively operated from either side of the box.

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

In an improved miter-box, comprising a base-plate having upwardly-projecting hollow standards, a segmental guide-frame having standards or posts connected with the

standards of the base-plate and vertically adjustable, within said standards, in combination with a saw-guide pivotally carried at one end by and depending from said guide-frame
5 and radially adjustable at the other end with relation thereto, said saw-guide having a flat base adapted to bear on the wood to be cut, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 30th day of October, 1896.

CHARLES BADGER HALL.

Witnesses:

C. SEDGWICK,
B. McCOMB.