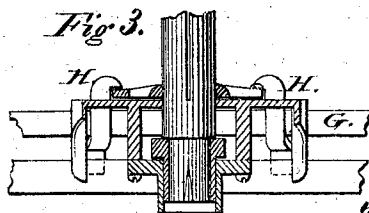
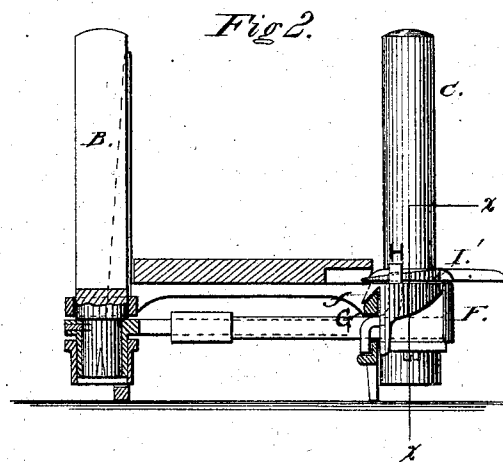
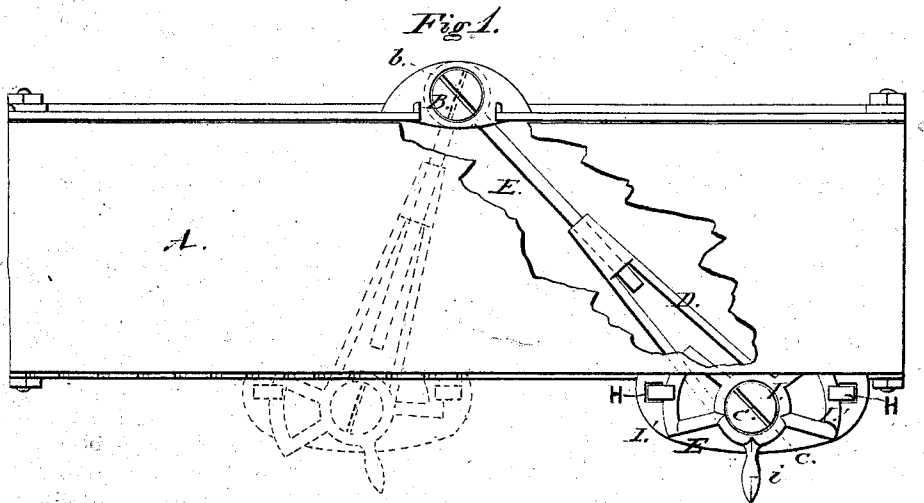


J. A. McKINSTRY & W. WALDEN.

Miter-Boxes.

No. 135,832.

Patented Feb. 11, 1873.



Witnesses.

Edw. W. Dunn
J. L. Mayo

Inventor.

John A. McKinstry
& William Walden
By Daniel Breed.
Atty.

UNITED STATES PATENT OFFICE.

JOHN A. MCKINSTRY AND WILLIAM WALDEN, OF SPRINGFIELD, MASS.

IMPROVEMENT IN MITER-BOXES.

Specification forming part of Letters Patent No. 135,832, dated February 11, 1873.

To all whom it may concern:

Be it known that we, JOHN A. MCKINSTRY and WILLIAM WALDEN, of Springfield, in the county of Hampden and State of Massachusetts, have made certain Improvements in Miter-Boxes, of which the following is a specification:

In the accompanying drawing, Figure 1 is a top view of a miter-box with our improvements attached. Fig. 2 is a vertical transverse section of the same. Fig. 3 is a section on the line *x x*, Fig. 2.

Our invention consists of a revolving clamp or wedge-shaped cam for setting the saw-guides at any desired angle or fraction of a degree. Our miter-box may be of the general form shown in the patent granted by the United States in 1866 to the above-mentioned JOHN A. MCKINSTRY.

In the accompanying drawing, the bottom or bed of the miter-box is shown at A. On the back side of the box is a revolving post, B, with a slot, *b*, for guiding the saw. On the front of the box is another post, C, so arranged as to slide or travel along the front bar of the box, and at the same time revolve, and thus keep the slot *c* of this post in a line corresponding to the slot *b* in the post B. By this arrangement these two slots or saw-guides will not bind upon the saw when the front post is moved. The two posts B and C are connected by a swinging extension-arm, D, and a sliding rod, E, by which means the two posts or the saw-guides therein are kept

in line for guiding the saw, as just mentioned above. The slide F has a hook, *f*, which takes hold of the upper and wedge-shaped edge of the front bar G. This slide is provided with two slightly-movable catches, H, the lower ends of which hook upon the inside of the front bar of the box, while their upper ends hook upon the revolving clamp or wedges I'. This revolving clamp is cast with a central ring of metal, I, embracing the front post, and with two wedges, I', Fig. 1. This cam is revolved by placing the hand upon the handle *i*. As the cam tightens or the wedges I' draw up the catches H, the slide F is pushed down, and the hook *f* bites upon the wedge-shaped edge of the front bar G. Thus all the parts are immovably locked by the clamp. By turning the clamp backward the slide F and post C are again released. Upon the straight bar G is a graduated scale, which may be marked by degrees so as to set the saw at any desired angle or fraction of a degree.

Our clamp may be applied to circular or curved machines.

Having described our invention, we claim—

In combination with a miter-box, the cam or clamp for setting the saw-guides at any desired angle or fraction of a degree, substantially as set forth.

J. A. MCKINSTRY.
WILLIAM WALDEN.

Witnesses:

DANIEL BREED,
EDM. F. BROWN.