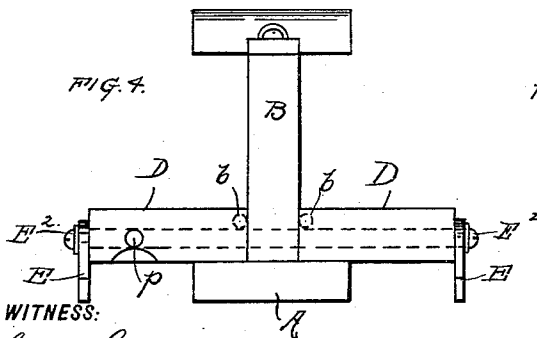
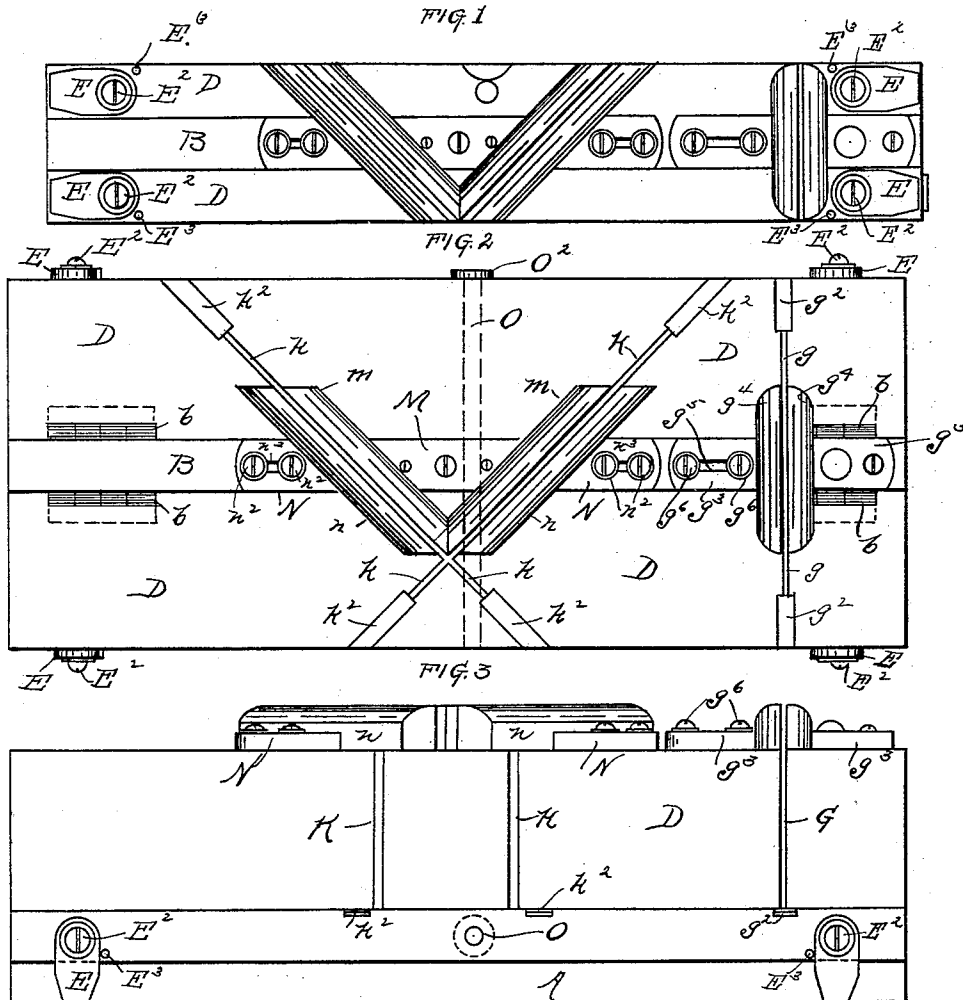


(No Model.)

J. ELLIS.
MITER BOX.

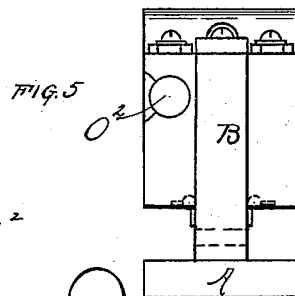
No. 569,327.

Patented Oct. 13, 1896.



WITNESS:

C. B. Larson
C. Ernst



INVENTOR

John Ellis
BY
Thomas H. Clark
ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN ELLIS, OF JERSEY CITY, NEW JERSEY, ASSIGNOR OF ONE-HALF TO
CHARLES H. VAN PELT, OF SAME PLACE.

MITER-BOX.

SPECIFICATION forming part of Letters Patent No. 569,327, dated October 13, 1896.

Application filed April 16, 1896. Serial No. 587,879. (No model.)

To all whom it may concern:

Be it known that I, JOHN ELLIS, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, 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 miter boxes or cases, such as are employed by carpenters for cutting bevels and right-angle joints for picture-frames and similar purposes; and the object thereof is to provide an improved device of this class which is simple in construction and operation and perfectly adapted to accomplish the result for which it is intended.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a plan view of my improved miter box or case with the sides thereof folded; Fig. 2, a plan view with the sides extended as when in use; Fig. 3, a side view of the device as shown in Fig. 1; Fig. 4, an end view of the device as shown in Fig. 2, and Fig. 5 an end view of the device as shown in Figs. 1 and 3.

In the practice of my invention I provide a miter box or case which consists of a base-plate A and a vertical plate B, which is secured centrally thereof, and hinged to the central vertical plate B at *b* are two side plates D, which are similar in form and which are adapted to be folded adjacent to the central vertical plate B, as shown in Figs. 1, 3, and 5, or to be extended or dropped into the position shown in Figs. 2 and 4, in which position they rest upon the bottom plate A.

Each of the side plates D is provided at its ends with short legs or supports E, which are pivotally connected therewith by means of screws or bolts E³, and when the said plates are dropped into the position shown in Figs. 2 and 4 these legs or supports are turned so as to support the outer edges thereof even with the bottom plate A, and when folded adjacent to the central vertical plate B the legs E are turned into the position shown in Fig. 1, in which position they are parallel

with the side plates, and the side plates are also provided with pins or projections E³, which limit the movement of these legs or supports in one direction.

The central vertical plate B, near one end thereof, preferably at the right, as shown in Figs. 1, 2, and 3, is provided with a transverse vertical slot G, which extends from the bottom to the top, as shown in Fig. 3, and the side plates D, adjacent thereto, are provided in their upper or inner surfaces with corresponding transverse grooves *g*, which are deepened and widened at their outer ends, and provided with metal plates *g*², and secured to the top of said central vertical plate B on each side of said transverse slot are short plates *g*³, to each of which is secured a transverse jaw *g*⁴, and one of the plates *g*³ is adjustable, being provided with a longitudinal slot *g*⁵ and being secured in position by screws *g*⁶, which pass therethrough.

The object of this construction is to provide means for cutting the end of a frame or other article transversely and at right angles, and in this operation the said part of the frame or other article is placed upon one of the side plates D and pressed against the central vertical plate B, so as to hold it in a perfectly straight position, and a saw is passed between the jaws *g*⁴, and the end of the article is sawed off in the usual manner. I also provide means for forming bevel-joints, which consist of two diagonal slots K, one of which is placed at each side of the center of the central vertical plate B, and these slots are arranged in the construction shown in the drawings so that if projected they would cross each other at right angles, and thus form an angle of forty-five degrees with a central transverse line. The side plates D are also provided on their upper or inner surfaces with corresponding grooves *k*, which are enlarged and deepened at their outer ends and provided with metal plates *k*², and secured centrally of the central vertical plate B is a triangular-formed plate M, to the ends of which are secured two similar jaws *m*, and at the outer sides of the slots K are short plates N, to the inner ends of which are secured jaws *n*, and the jaws *m* and *n* are parallel with and arranged at each side of the slots K, and in order

to form beveled joints or to cut off the ends of a part of the frame, so that right-angled joints or couplings may be formed, it is only necessary to press the material from which the frame is formed against the side of the central vertical plate and rest the same upon the side plates and pass the saw between the jaws *m* and *n*.

The jaws *n* are adjustable, being secured to the central vertical plate by screws *n*², which pass through longitudinal slots *n*³, and formed transversely in the side plates D and the central vertical plate B is a bore O, (shown in dotted lines in Fig. 2,) through which may be passed a bolt provided with a head O², whereby the side plates are firmly held in the lower position, or that shown in Figs. 2 and 4, and one of said side plates, as shown in Fig. 4, is provided with a longitudinal bore P, in which said bolt is placed when not in use.

The object of the grooves *k* and *g*², which register or correspond with the slots G and K in the vertical plate, is to provide means to prevent cutting or defacing the plates D, and the object of the metal plates *k*² and *g*², which are placed in these grooves, is to prevent the saw from passing or cutting into said plates D.

This device is simple in construction and operation and is well adapted to accomplish the result for which it is intended, and it is evident that changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages, and I reserve the right to make all such alterations therein and modifications thereof as fairly come within the scope of the invention. Having fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A miter box or case, comprising a base-plate, a central vertical longitudinal plate, and two side plates which are hinged thereto, said central vertical plate being provided with a transverse slot at or near one end thereof, and with two diagonal slots which, if projected would intersect each other, substantially as shown and described.

2. A miter box or case, comprising a base-plate, a central vertical longitudinal plate, and two side plates which are hinged thereto, said central vertical plate being provided with a transverse slot at or near one end thereof, and with two diagonal slots which, if projected would intersect each other, and said central vertical plate being provided on its upper edge or side with two short plates which are secured thereto, at each side of said transverse slot, and each of which is provided with a jaw, one of which is adjustable, substantially as shown and described.

3. A miter box or case comprising a base-plate, a central vertical longitudinal plate, and two side plates which are hinged thereto, said central vertical plate being provided with

a transverse slot at or near one end thereof, and with two diagonal slots which, if projected would intersect each other, and said central vertical plate being provided on its upper edge or side with two short plates which are secured thereto, at each side of said transverse slot, and each of which is provided with a jaw, one of which is adjustable, and also with similar plates arranged at the sides of the diagonal slots to which jaws are secured, one of said jaws in connection with each slot being adjustable, substantially as shown and described.

4. A miter box or case comprising a base-plate, a central vertical longitudinal plate, and two side plates which are hinged thereto, said central vertical plate being provided with a transverse slot at or near one end thereof, and with two diagonal slots which, if projected would intersect each other, and said central vertical plate being provided on its upper edge or side with two short plates which are secured thereto, at each side of said transverse slot, and each of which is provided with a jaw, one of which is adjustable, and also with similar plates arranged at the sides of the diagonal slots to which jaws are secured, one of said jaws in connection with each slot being adjustable, and the hinged side plates being provided on their upper or inner surfaces with transverse and diagonal grooves which correspond with said slots, substantially as shown and described.

5. A miter box or case comprising a base-plate, a central vertical longitudinal plate, and two side plates which are hinged thereto, said central vertical plate being provided with a transverse slot at or near one end thereof, and with two diagonal slots which, if projected would intersect each other, and said central vertical plate being provided on its upper edge or side with two short plates which are secured thereto, at each side of said transverse slot, and each of which is provided with a jaw, one of which is adjustable, and also with similar plates arranged at the sides of the diagonal slots to which jaws are secured, one of said jaws in connection with each slot being adjustable, and the hinged side plates being provided on their upper or inner surfaces with transverse and diagonal grooves which correspond with said slots, and said side plates and said central vertical plate being provided with a transverse bore which is adapted to receive a bolt or rod, substantially as shown and described.

6. A miter box or case comprising a base-plate, a central vertical longitudinal plate, and two side plates which are hinged thereto, said central vertical plate being provided with a transverse slot at or near one end thereof, and with two diagonal slots which, if projected would intersect each other, and said central vertical plate being provided on its upper edge or side with two short plates which are secured thereto, at each side of said transverse slot, and each of which is

provided with a jaw, one of which is adjustable, and also with similar plates arranged at the sides of the diagonal slots to which jaws are secured, one of said jaws in connection with each slot being adjustable, and the hinged side plates being provided on their upper or inner surfaces with transverse and diagonal grooves which correspond with said slots, and said side plates and said central vertical plate being provided with a transverse bore which is adapted to receive a bolt

or rod, and said side plates being also provided with legs or supports which are pivotally connected therewith, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses.

JOHN ELLIS.

Witnesses:

J. D. SCHOONMAKER,
WILLIAM ALLEN.