No. 850,873. PATENTED APR. 16, 1907.

J. L. PRINGLE.

MITER BOX.

APPLICATION FILED OCT. 17, 1905.

Fig. 1.

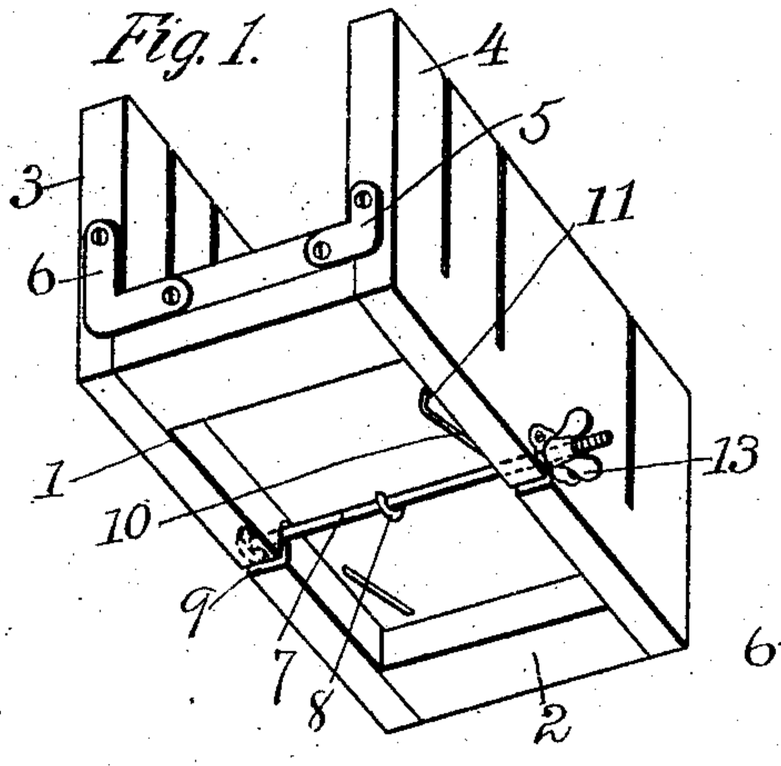


Fig. 2.

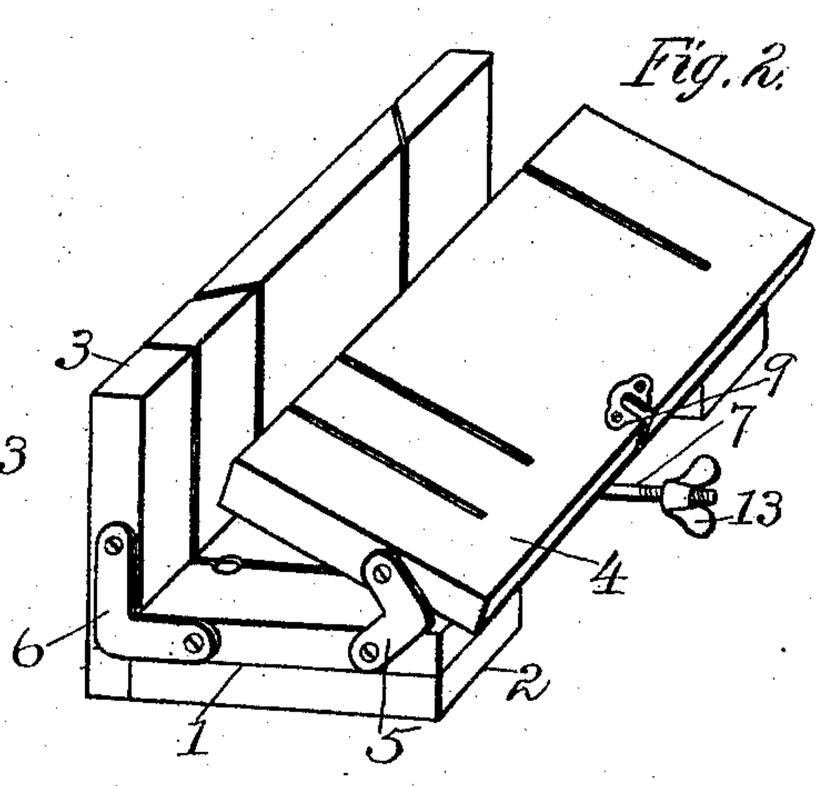
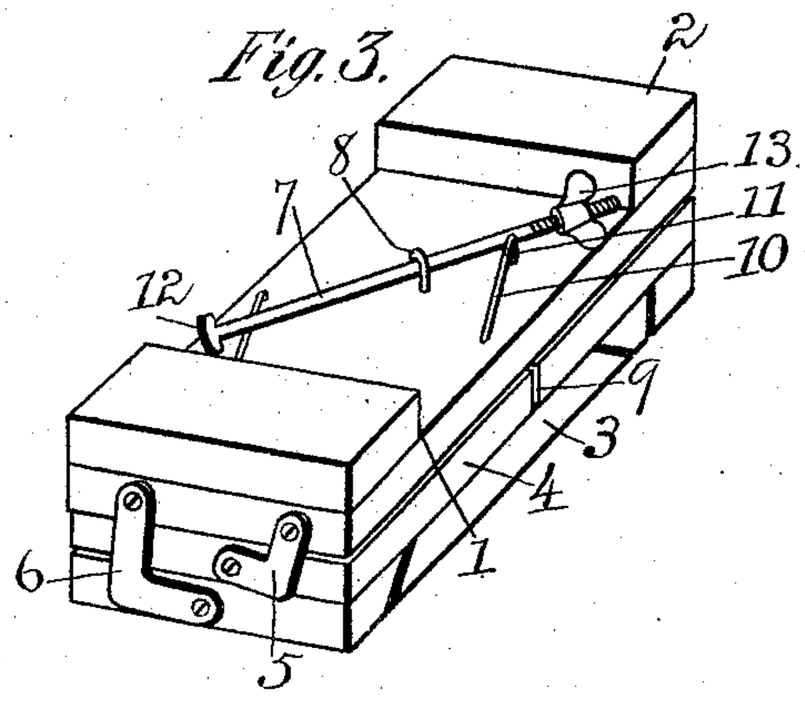


Fig. 3.



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UNITED STATES PATENT OFFICE.

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MITER-BOX.

No. 850,873. Specification of Letters Patent. Patented April 16, 1907.

Application filed October 17, 1905. Serial No. 283,096.

To all whom it may concern:

Be it known that I, JOHN L. PRINGLE, a subject of the King of Great Britain, and a resident of New Britain, in the county of Hartford and State of Connecticut, have invented a certain new and Improved Miter-Box, of which the following is a specification.

My invention relates to that class of miter-boxes more especially designed to be folded when not in use; and the object of my invention is to provide a device of this class which may be folded to occupy the smallest possible space; and a further object of my invention is to provide such a device that may be readily placed in condition for use and securely fastened as to the several parts.

A form of device in the use of which these objects may be attained is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved box opened out in condition for use. Fig. 2 is a perspective view showing one of the sides partly folded down. Fig. 3 is a perspective view showing the box folded.

In the accompanying drawings, the numeral 1 denotes the bottom of the box, that may be suitably formed of wood or other desired material. As herein shown, the box is composed of wood. Reinforcing-pieces 2 are affixed to the bottom extending crosswise thereof at the ends, leaving a space within which the fastening devices may be located when the box is folded and not in use.

The side pieces 3 and 4 are hinged to the bottom, so that they may be folded over thereon and upon each other.

An important feature of my invention resides in the manner of forming the hinge or pivotal connection between these side pieces and the bottom. It will be observed that when the device is folded one of the sides lies closely upon the bottom and the other side closely upon that resting upon the bottom. These sides are of the same width as the bottom, so that when the device is folded the least possible amount of space is occupied. In constructing these hinges or pivotal connections I have so formed the hinges that the side pieces may each have a swinging movement on two pivots with their axes located parallel, but in different positions.

In the present form of the invention an angular-shaped strap 5 is provided, this strap being pivoted at one end to the bottom and at the opposite end to the side piece 4. In the preferred form the pivots are located at the ends of the straps, so that it will be observed the side piece when the device is in position for use, as shown in Fig. 1, may be tipped slightly from a vertical position swinging on the strap and then may be swung laterally of the bottom on the pivot secured to the bottom and also swung downward to rest closely upon the bottom. It is obvious that the obtaining of this result is not confined to the exact form and construction of hinge as herein shown, and I do not desire to limit myself to such construction, as any device capable of securing this result will be deemed to come within the limits and scope of my invention. The hinge 6, securing the side 3 to the bottom, is similarly formed as is the hinge 5, except that the strap is made somewhat longer, so that the side 3 may be swung to lie on top of the side 4 and closely against its upper surface, as shown in Fig. 3.

It will be observed by this construction that I have provided means whereby the outer edges of the bottom and the edges of the sides located in proximity thereto may be placed in the same plane when the device is folded, and, so far as I am aware, such a result has never before been attained. By providing a device capable of this result it will be noted that when the sides are made of the same width as the bottom that an extremely compact folded device or miter-box is secured, as shown in Fig. 3 of the drawings, and one occupying the least possible space.

The sides are provided with the usual slots or guides for a saw, arranged at desired angles with respect to each other, as shown in the drawings.

In order to hold the box and secure it in an open position, a lock is provided consisting of a bolt 7, hinged, as at 8, to the bottom beneath the end pieces 2. The sides that project below the main part of the bottom are provided with notches 9, in which this bolt may be located. Spring-latches 10 are affixed to the bottom of the box, the free ends 11 of these latches being movable in and out of a recess in the bottom in a manner similar to that of the well-known catch for an umbrella. When the lock is not in use, it is placed in position shown in Fig. 3, where it is securely held by the spring-catches. When the box is opened, it is swung to the position shown in Fig. 1, projecting through the slots 9, the head 12 lying on one side and the nut 13 on the opposite side of the box,

the latter being used for tightening the parts and securing them in place.

While I have shown and described herein one means of securing the box in an opened and in a closed position of the parts, it will be obvious that various fastening means for securing this result may be employed, and I do not intend nor desire to limit my invention to any particular means of fastening the parts.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A miter-box including a bottom and a side projecting beyond the under surface of the bottom, a hinge including a strap angularly formed and pivoted to both the bottom and the side, and means located on the bottom to engage the projecting part of the side to hold it in an upright position.

2. A miter-box including a bottom and a side projecting beyond the under surface of the bottom, and having a slot in said projecting part, a hinge including a strap angularly formed and pivoted to both the bottom and the side at the ends thereof, and a lock located on said bottom to engage said slot to hold the side in an upright position.

3. A miter-box including a bottom and a side projecting beyond the under surface of the bottom, a stop located on the under surface of the bottom to engage said projecting part, a hinge including a stop angularly formed and pivoted to both the bottom and the side at the ends thereof, and means located on the bottom for engaging said projecting part and holding it against said stop.

4. A miter-box including a bottom and a side pivoted thereto and projecting beyond the under surface thereof, a stop to engage said projecting edge to limit the swinging movement of the side, and means located on the bottom to engage said projecting part of the side and hold it in an upright position.

5. A miter-box including a bottom and a side projecting beyond the under surface of the bottom, a hinge including a strap angularly formed and pivoted to both the bottom and the side, a stop to preventing swinging movement of the side beyond a line with its inner surface at right angles to the inner surface of the bottom, and means engaging said projecting part for holding the side against said stop.

6. A miter-box including a bottom and sides pivoted at opposite side edges thereof, stops to limit the swinging movement of each side beyond a line with the inner surface of the sides at right angles with the inner surface of the bottom, and a clamp extending across the bottom and engaging the lower edges of the sides to hold them against said stop.

7. A miter-box including a bottom and two sides with projecting edges each having slots, the sides being secured by joints, and a lock for said sides including a bolt pivotally secured to the bottom with a head and clamp to engage the sides to hold them in position, and a spring-catch for said bolt.

8. A miter-box including a bottom and a side pivoted thereto and projecting beyond the under surface of the bottom, said side being pivotally secured to the bottom, and means located on the bottom to engage said projecting part of the side to hold it in an upright position.

9. A miter-box including a bottom and a side pivoted thereto and projecting beyond the under surface of the bottom and having a slot in said projecting part, and a lock located on said bottom to engage said slot to hold the side in an upright position.

10. In a miter-box, a bottom and a side pivoted thereto and having its edge projecting beyond the under surface of the bottom, stops to engage said projecting edge to limit the swinging movement of the side, and a lock located on the bottom of the box to engage said projecting edge and hold it against said stops.

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