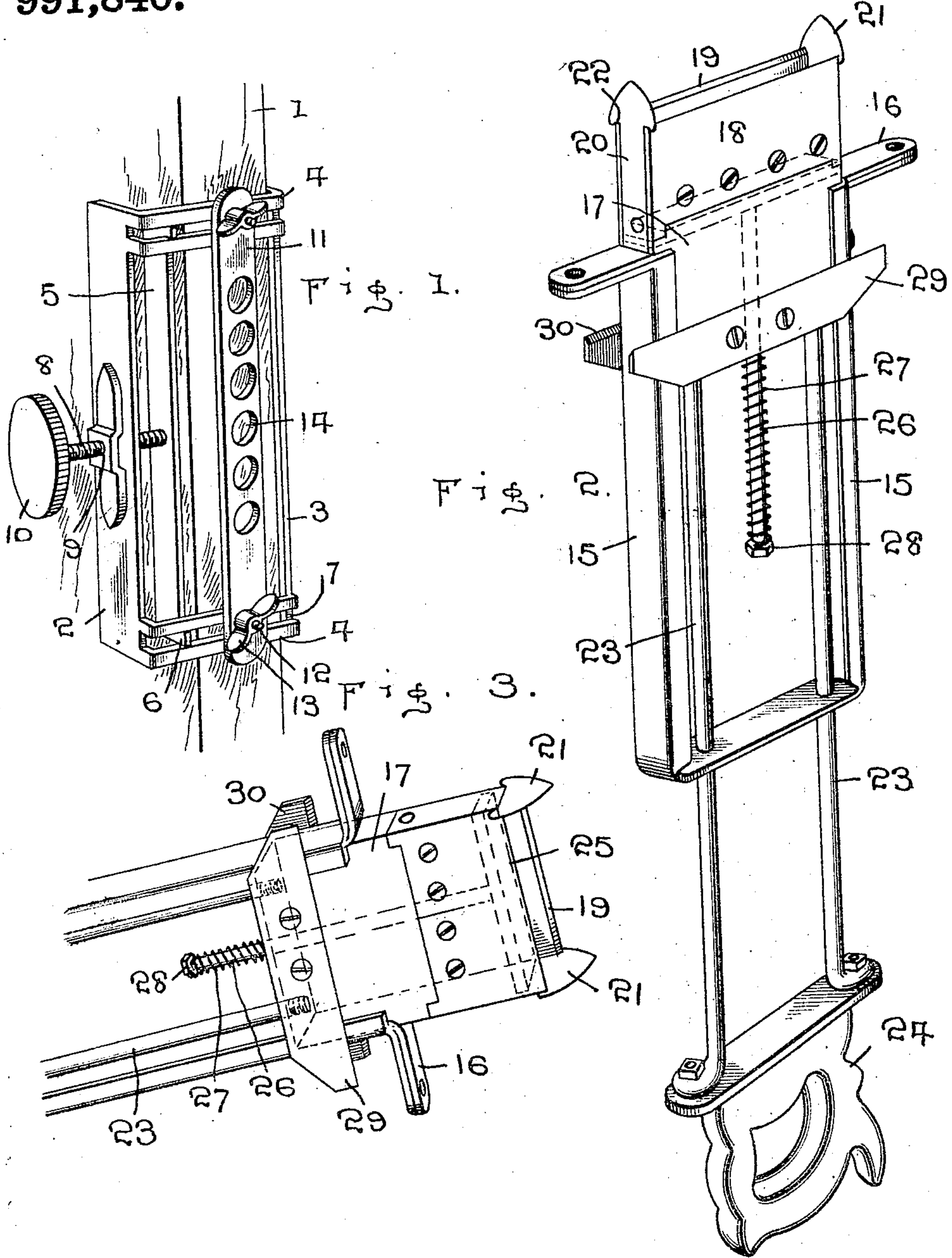


A. FULTON.  
MORTISING DEVICE.  
APPLICATION FILED APR. 22, 1910.

991,840.

Patented May 9, 1911.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ALPHEUS FULTON, OF TABLE ROCK, NEBRASKA.

MORTISING DEVICE.

991,840.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed April 22, 1910. Serial No. 556,914.

*To all whom it may concern:*

Be it known that I, ALPHEUS FULTON, a citizen of the United States, residing at Table Rock, in the county of Pawnee and State of Nebraska, have invented certain new and useful Improvements in Mortising Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in mortising devices and more particularly to that class adapted to be used in making mortises in doors for the reception of locks and my object is to provide a clamping device which is adapted to be removably secured to a door.

A further object is to provide a guide plate and adjustably mount the same upon said clamp, said guide plate being employed for properly positioning an auger when boring holes in the door.

A further object is to provide a suitable mortise cutting device and means for operating the same.

A further object is to provide a guide for the mortising device, and, a still further object is to provide means for adjustably attaching the mortising device to the clamping mechanism on the door.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawings which are made a part of this application, Figure 1 is a detail perspective view of one edge of a door, showing my improved clamp attached thereto and the auger guiding mechanism thereon. Fig. 2 is a perspective view of the mortising device, and, Fig. 3 is a perspective view of one end thereof.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the door, to one edge of which is secured my improved form of clamping device, which consists of a pair of parallel bars 2 and 3, which bars are connected together by means of straps 4, said straps being so arranged that when extended across the end of the door, the bars will be positioned at the opposite faces of the door.

As doors vary in width, a clamping plate 5 is positioned between the bars 2 and 3 and has extensions 6, which project through slots

7 in the straps 4, said extensions forming guides for the clamping plate.

When the bars 2 and 3 are positioned on opposite sides of the door, an adjusting screw 8 is turned into engagement with the clamping plate 5, whereby said plate will be forced inwardly and engaged with one face of the door, while the bar 3 is engaged with the opposite face of the door, said screw 8 being extended through a threaded opening 9 in the bar 2, the outer end of the screw 8 having a milled head 10, whereby said screw may be readily operated. A guide plate 11 is then attached to the straps 4 and is adjusted thereon by introducing bolts 12 through the slots in the straps and through the ends of the guide plate, said bolts being engaged by wing nuts 13, whereby the plate may be readily clamped on the straps and by sliding the bolts back and forth in the slots, the guide plate will be readily adjusted on the clamping device.

The guide plate 11 is provided with a plurality of openings 14, through which is to be introduced the usual or any preferred form of auger (not shown), said auger being employed for boring holes in the edge of the door and by properly adjusting the guide plate, the openings will be made at the proper place in the edge of the door.

After the holes have been bored in the edge of the door, the plate 11 is removed and a frame 15 attached to the bolts 12, said frame having ears 16 thereon, through which the bolts extend.

Parts of the frame 15 are channel shaped in cross section to form guides for a cutter head 17, the side plates 18 of said head having cutting edges 19, while the end plates 20 project beyond the side plates and said extended portions of the end plates are provided with cutting edges 21.

The extended portions of the end plates 20 are preferably tapered on each edge, so as to form a substantially dart shaped construction, that portion of the extended ends adjacent the side plates 18 being preferably provided with notches 22, into which the edges of the side plates 18 project.

The cutter head 17 has attached thereto a pair of rods 23, which project through the end of the frame 15 and have secured to their outer ends a handle 24, such as is commonly used in connection with saws or similar implements.

By securing the frame to the clamping



plate in the same relative position as was occupied by the guide plate, the cutter head will be in position to engage the parts of the door having auger holes therein and by moving the cutter head back and forth in the frame and driving the same into engagement with the edge of the door, the cutting edges will form a mortise therein. The chips or particles removed by the cutting edges pass between the side and end plates and at any time it is desired to discharge the particles from the opening between the end and side plates, a plunger 25 is moved forwardly, which will expel the particles of wood from the cutter head. The plunger 25 is slidably mounted in the space between the side and end plates and has a stem 26 attached thereto, which stem projects through the inner end of the cutter head, the plunger being normally held adjacent that portion of the cutter head through which the stem extends by placing a spring 27 around the stem and between the end of the cutter head and a nut 28 on the free end of the stem. I have also provided means for cutting two sides of a mortise for the reception of the face plate of the lock, which consists in attaching a blade 29 to opposite faces of the cutter head 17, which blades are so arranged as to engage the edge of the door when the mortise has been made substantially its full length, said blades being likewise provided with cutting edges 30, which will make an incision in the edge of the door of sufficient depth to receive the face plate of the lock. As soon as the mortise has been cut its proper depth, the clamp and mortise cutting device are removed from the door and any suitable instrument used for cutting out the material between the incisions made by the blades 29, thus completing the mortise for the reception of a lock.

If a mortise is required of greater height than the height of the cutter head, the clamp is to be moved upwardly or downwardly the proper distance to increase the length of the mortise after the first cutting has been performed and if the width of the mortise is to be greater, the frame 15 is to be adjusted laterally the proper distance.

It will thus be seen that I have provided a mortising device that can be quickly applied to use and one that will be positive in its operation and it will likewise be seen that by first boring the holes in the door, it will

require but a few operations of the mortising device to complete the mortise. It will further be seen that by providing the clamping device with the slotted straps, the guide plate can be quickly attached thereto and positioned so as to cause the bit to enter the door at the proper place. It will likewise be seen that the mortising device may be quickly attached to the clamping device and adjusted to a position to engage the door at the proper place and further that the clamping device and the mortising mechanism may be quickly adjusted to cut a mortise of enlarged size.

What I claim is:—

1. A door mortiser comprising a clamp formed of a single piece of metal and having its central portion cut out to expose the edge of a door and its side edge portions bent to engage the sides of a door and its end edge portions slotted, means for clamping said side edge portions to the sides of a door, a mortiser having ears to engage the slotted end edge portions, and means for adjustably securing the ears to the slotted portions.

2. The combination with a clamp adapted to be fixed to the edge of a door, of a frame adapted to be secured to the clamp and extend at right angles to the edge of the door, end cutters slidable on the frame, side cutter plates secured against the edges of the end cutters whereby a rectangular incision can be made in the door edge, auxiliary cutter plates on the frame to form a supplementary incision in the door edge outside of the incision formed by the first set of cutters, and plunger rods connected with said auxiliary plates.

3. In a door mortiser, a frame adapted to be supported in working position against the edge of a door, side and end cutter plates secured together and movable in the frame, the end plates projecting beyond the side plates, an ejector movable between the plates, a spring rod connected with the ejector, and auxiliary cutter plates on the frame rearwardly of the other plates.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALPHEUS FULTON.

Witnesses:

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