April 28, 1964 J. W. JUNEMAN 3,130,760

DOOR MORTISING TEMPLATE AND HOLDER

Filed July 2, 1962

Fig. 1.

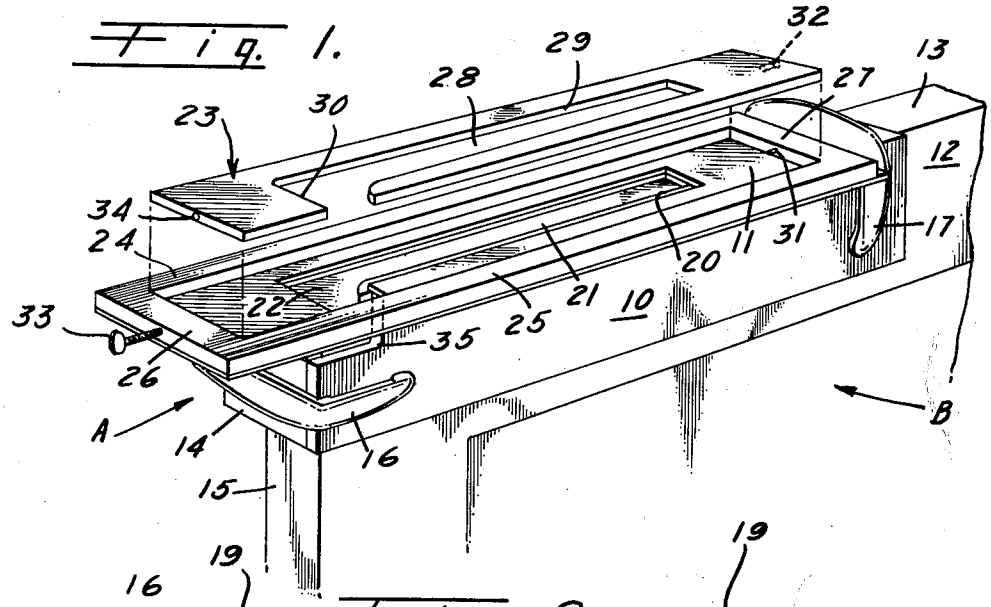
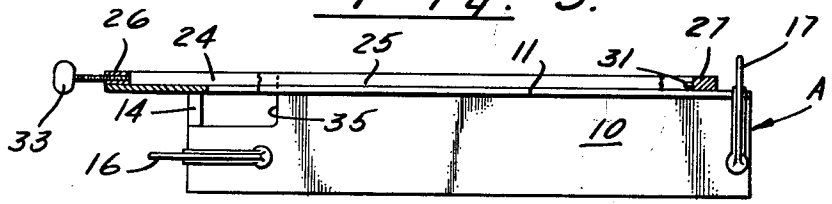


Fig. 2.
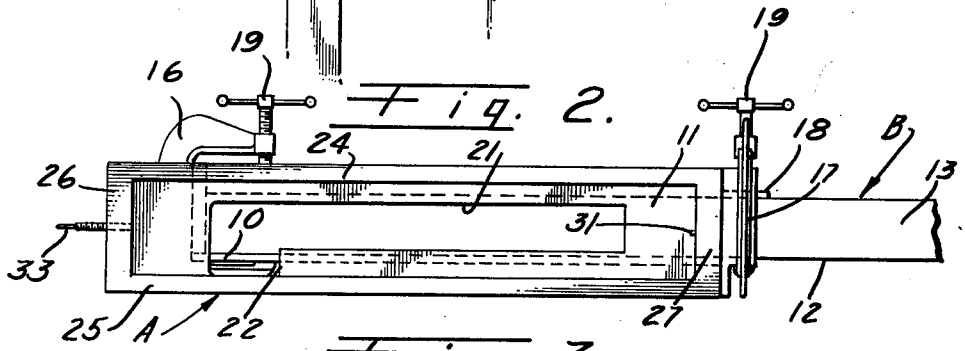


Fig. 3.



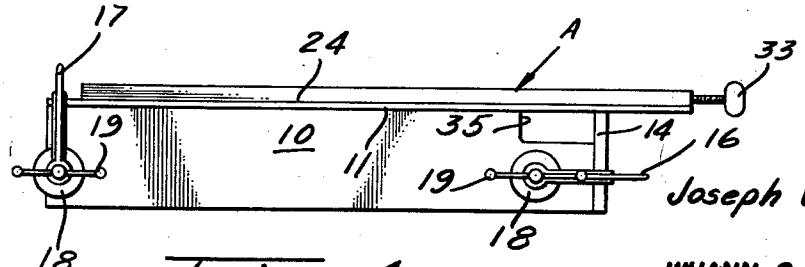


Fig. 4.

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DOOR MORTISING TEMPLATE AND HOLDER

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The present invention relates generally to woodworking apparatus, and is more particularly concerned with a holder of simple construction arranged to interchangeably receive a multiplicity of templates for mortising door edges to selectively accommodate any desired one of a great variety of hinges and top pivots as fabricated by different manufacturers.

Heretofore, the mounting of offset floor hinge arms, center hung floor hinge arms and top pivots has presented a difficult problem due to the existing, and often slight variations in the structures of the different manufacturers.

Due to this lack of standardization, time consuming and make-shift procedures have been followed which entailed the use of crudely constructed templates of plywood, Masonite and other materials which were nailed or temporarily secured to the door and used to guide the router tool.

Having the foregoing in mind, the present invention has for one object the provision of a mortising device of simple construction which may be quickly and easily attached to the workpiece, such as a door, this device having a frame structure adapted to interchangeably receive a plurality of guiding templates representative of the hinge and pivot structures of the various manufacturers. In this manner, a relatively small number of templates may be utilized and take care of the majority of the manufacturers' products, thus permitting accuracy of installation and saving of time.

Another object of the invention resides in the provision of a device of the character described which is so arranged that the router may be placed in a starting position in which the tool is out of engagement with the workpiece, and after starting may be laterally moved into working engagement with the tool operating at full cutting depth.

Further objects of the invention will be brought out in the following part of the specification, wherein detailed description is for the purpose of fully disclosing the invention without placing limitations thereon.

Referring to the accompanying drawings, which are for illustrative purposes only:

FIG. 1 is a perspective view of a mortising template and holder according to the present invention in affixed position on a workpiece, such as a door;

FIG. 2 is a fragmentary plan view;

FIG. 3 is an elevational view as seen from one side, portions being cut away to more clearly show the fastening means for a template; and

FIG. 4 is an elevational view of the opposite side.

Referring generally to the drawings, for illustrative purposes, the template holder, as generally indicated at A, is shown as being affixed in its operative position upon a workpiece, in this case a door, as generally indicated at B.

Although various materials are readily available from which the template holder may be constructed, it is preferred to utilize a light strong material such as aluminum plates which are readily fabricated and in the finished product provide a lightweight device which may be easily transported for use in different locations.

The template holder A embodies a box-like frame structure in which a relatively heavy plate member **10** and a somewhat thinner plate member **11** are secured by appropriate means in right angled relationship. As thus secured, the inner flat surfaces of the plates may be

placed in engagement with the side face **12** and edge face **13** of the door so as to position the device in operative position thereon.

Cooperatively associated with the plates **10** and **11**, is an end plate **14** which is positioned at a right angle to each of the plates **10** and **11** and has an inner surface adapted to engage an end edge face **15** of the door and thus cooperate in the positioning of the device in an operative position.

The frame structure thus formed is removably affixed to the workpiece by the provision of C-clamps **16** and **17** respectively fixedly secured to the ends of the frame structure. These clamps are so oriented that the adjustable clamping pads **18—18** thereof may be manipulated by the manually operable screws **19** in each case into engagement with the opposite side face of the door from the side face **12**.

In order to mortise the door edge for offset hinge and pivot arms, the mortise recess must be substantially L-shaped with an end leg portion which extends into the side face of the door. In order to take care of templates having an L-shaped guiding slot therein, the plate **11** is provided with an L-shaped opening **20** which has an elongate leg portion **21** which extends lengthwise of the plate, and a short leg portion **22** which extends transversely towards one side of the plate.

For accommodating a template, as indicated in FIG. 1 by the numeral **23**, the plate **11** is provided with a raised peripheral flange which includes side flanges **24** and **25** positioned on opposite sides of the opening **20**, and end flange portions **26** and **27**. The peripheral flange cooperates with the portions of plate **11** surrounding the opening **21** to provide a recess which is arranged to receive the template **23** flatwise therein. The exposed surfaces of the peripheral flange lie in a plane which is parallel to the under surface of the plate **11**, and provide a bearing face for the face-plate of a conventional router which will thus be movable to guide the router tool as dictated by the guiding opening in the template.

The illustrated template is shown as containing an L-shaped opening **28** which comprises an elongate leg portion **29** and short leg portion **30**. A multiplicity of interchangeable templates may be used to provide the proper mortising for the various manufactured hinge arms, and the required guiding opening **28** is made of such dimensions as may be required. Of course, the opening **21** is made sufficiently large that it will not interefere with the opening of the template.

For retaining the template in the holder, a projecting pin **31** is provided in the end flange **27**, this pin being arranged to extend into a recess **32** in the adjacent end of the template. At the opposite end, with the template in operative position, a thumb screw **33** may be actuated to enter a recess **34** in the adjacently disposed end of the template. Various templates are therefore easily positioned in the holder, and changes may be readily made from one template to another.

Referring to FIG. 2, it will be observed that the side of the plate **11** containing the flange **25** is mounted in overhanging relation with respect to the plane of plate **10**. As thus arranged, the outer end of the short leg portion **22** of the opening **20** extends beyond the plate **10** and provides a space for receiving the router tool in a starting position in which the tool will be out of engagement with the adjacent door material. To begin the routing operation, the tool may then be moved from the starting position into engagement with the door material by laterally moving the router so as to pass the tool through a cutout **35** in the adjacent face of the plate **10**. Thus the cutting tool may be started at its full cutting depth and proceeding the routing or mortising operation, being guided by the opening in the template **23**.

Various modifications may suggest themselves to those skilled in the art without departing from the spirit of my invention, and, hence, I do not wish to be restricted to the specific form shown or uses mentioned, except to the extent indicated in the appended claims.

I claim:

1. A mortising device, comprising:

(A) a frame structure adapted to be applied to the marginal edge portion of a door, including

(*a*) a first plate and a second plate in right angled relation cooperating to position the frame structure in an operative position with the plates respectively engaging the edge face of the door and the adjacent side face of the door, one of said plates having an overhanging side margin extending outwardly of the plane of the other plate, and an opening having portions extending on opposite sides of said plane;

(B) marginal edge portions projecting from the outer surface of said one of said plates to form a template receiving recess, the outer surfaces of said edge portions lying in a plane parallel to the plane of the door engaging inner surface of the plate for guiding engagement with a router face-plate;

(C) a template positioned in said recess having a router tool guiding opening arranged to be positioned over the plate opening, and the portions of the openings outwardly of the other of said plates providing a starting position in which the tool may operate freely without contact with the associated door; and

(D) clamping means carried by said plates for attaching the frame structure in an operative position on the door.

2. A mortising device, comprising:

(A) a frame structure adapted to be applied to the marginal edge portion of a door, including

(*a*) a first plate and a second plate in right angled relation cooperating to position the frame structure in an operative position with

the plates respectively engaging the edge face of the door and the adjacent side face of the door, one of said plates having an overhanging side margin extending outwardly of the plane of the other plate, and an opening having portions extending on opposite sides of said plane;

(B) marginal edge portions projecting from the other surface of said one of said plates to form a template receiving recess, the outer surfaces of said edge portions lying in a plane parallel to the plane of the door engaging inner surface of the plate for guiding engagement with a router face plate;

(C) a template position in said recess having a router tool guiding opening arranged to be positioned over the plate opening,

(*a*) the portions of the openings outwardly of the other of said plates providing a starting position in which the tool may operate freely out of contact with the associated door, and

(*b*) said other of said plates having a cutout through which the tool may be moved laterally from the starting position into cutting engagement with the door; and

(D) clamping means carried by said plates for attaching the frame structure in an operative position on the door.

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UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,130,760 April 28, 1964

Joseph W. Juneman

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 2, line 71, for "proceeding the" read -- proceed in the --.

Signed and sealed this 6th day of October 1964.

(SEAL)
Attest:

ERNEST W. SWIDER
Attesting Officer

EDWARD J. BRENNER
Commissioner of Patents