

June 17, 1958

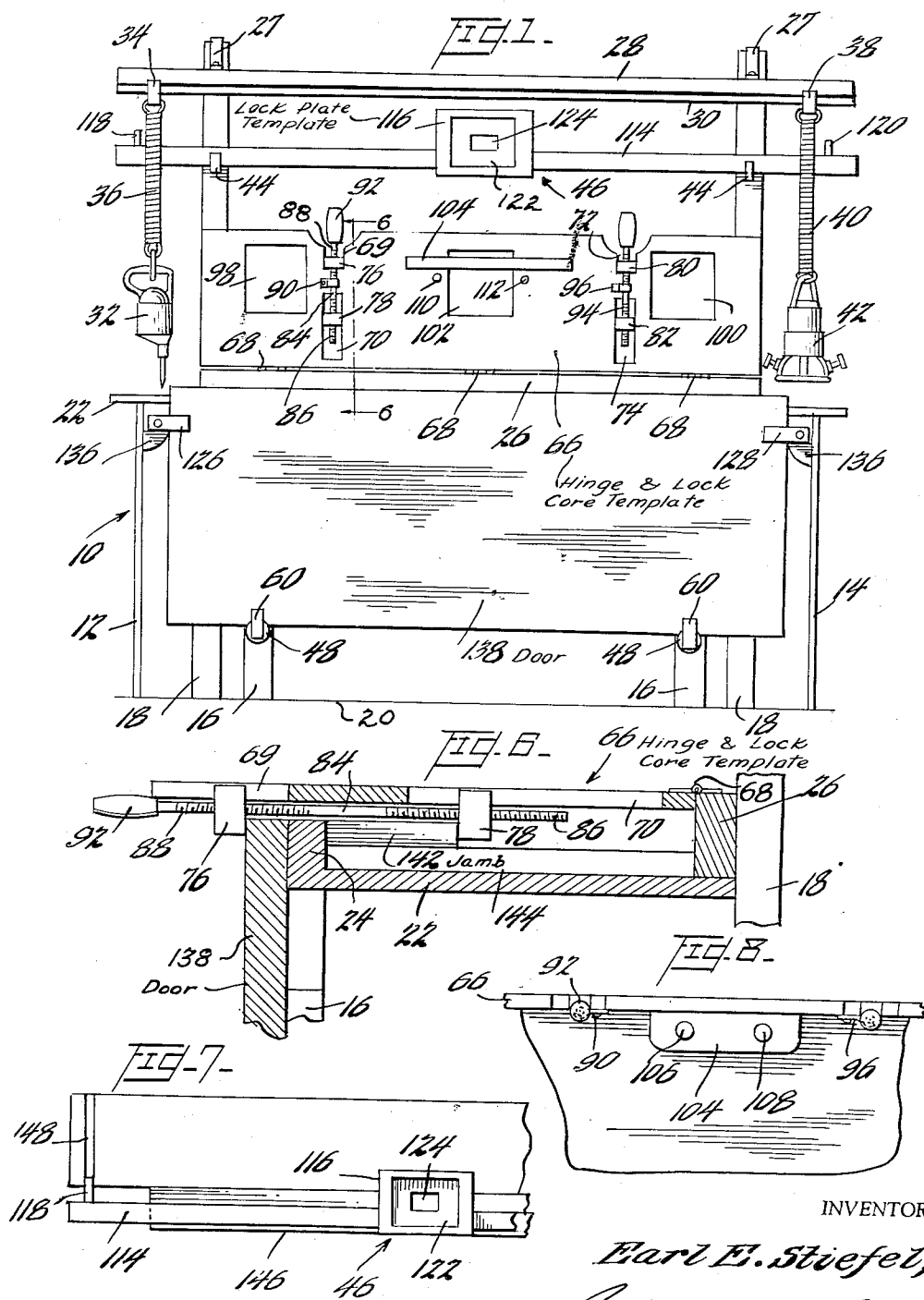
E. E. STIEFEL

2,839,104

ROUTING MACHINE DOOR CRAFTER

Filed June 11, 1956

2 Sheets-Sheet 1



INVENTOR

Earl E. Stiefel,

BY

Parker and Walsh

ATTORNEYS

E. E. STIEFEL

ROUTING MACHINE DOOR CRAFTER

Filed June 11, 1956

2 Sheets-Sheet 2



Earl E. Stiefel,

Parker and Walsh.

ATTORNEYS

1

2,839,104

ROUTING MACHINE DOOR CRAFTER

Earl E. Stiefel, Kerrville, Tex.

Application June 11, 1956, Serial No. 590,767

14 Claims. (Cl. 144—27)

This invention relates to a template means and method for facilitating locating hinges on doors and jambs, and which I call a door crafter.

An object of this invention is to provide means for supporting a door and applying a template thereto for routing for the hinges.

Another object of this invention is to provide means for supporting a door and applying a template thereto for drilling for the latch or lock.

Another object of this invention is the provision of a template for simultaneously locating and routing for the hinges on a door and a jamb.

Another object of this invention is the provision of means for supporting a door jamb for routing for the latch plate or keeper.

Another object of this invention is the provision of a jig and template for properly associating a door and a door jamb for routing and drilling for hinges.

Another object of this invention is the provision of means for holding a door for beveling the front edge and thereafter positioning the door for drilling for the lock or latch.

These and other objects will appear in the following specification and the accompanying drawings which constitute a disclosure of the invention.

In the drawings:

Figure 1 is a front elevation of a work bench embodying the templates of my invention;

Figure 2 is a right end view of the device of Figure 1;

Figure 3 is a partial end view similar to Figure 2, with two templates in operative position;

Figure 4 is a fragmentary section of one of the door supporting knobs;

Figure 5 is a section on the line 5—5 of Figure 4;

Figure 6 is a fragmentary transverse section through the device showing one of the clamps engaging a door and a jamb; if the template 66 were raised from the position shown in Figure 6 to the position shown in Figure 2, the line 6—6 of Figure 1 would indicate the section shown in Figure 6;

Figure 7 is a fragmentary view of a latch plate mortising guide in position on a door; and

Figure 8 is a fragmentary front view of the lock locating template in operative position.

Referring now to the drawings wherein like reference characters represent like parts throughout the several views, I show a work bench or table 10 having ends 12, 14, front legs 16 and rear legs 18. The table or bench 10 is adapted to rest on a floor or other surface 20. A table top 22 extending between the front legs 16 and the rear legs 18 is provided at its forward edge with a ledge or parting strip 24 which may or may not be integral with the table top 22, as occasion demands.

At the rear of the table top 22, a plate 26 is attached to the legs 18. The legs 18 extend upwardly some distance and near their upper ends I place a rail 28 supported by brackets 27 and arms 29, and having a track thereon for

2

movably supporting a conventional electric screw driver or drill 32 suspended from a carriage 34 by flexible means such as the spring 36. Also suspended from a carriage 38 on the track 30, by means of a spring 40 is a conventional routing machine 42.

A pair of clips 44 are mounted on the legs 18 for removably supporting a lock plate template 46.

A pair of door supporting knobs 48, having cylindrical portions 50 are eccentrically and adjustably mounted on the legs 16 by means of bolts 52 and wing nuts 54. Hinges 56 are held by the heads 58 of the bolts 52 against the outer ends of the knobs 48. Suitably mounted on the hinges 56 are arms 60 having at one end of each a block 62 and at the other end a weight 64 for a purpose later to appear.

A template 66 is hingedly mounted as at 68 on the plate 26. The template 66 is slotted as at 69, 70, 72 and 74 to accommodate the clamping jaws 76, 78, 80 and 82. Jaws 76 and 78 are threadedly mounted on a screw 84 having right and left threads respectively 86 and 88. The jaws 76 and 78 slide in the slots 69 and 70 respectively. The screw 84 is held in position by a spring clip 90 fastened to the template 66 and engaging intermediate the ends of the screw. The screw 84 is provided with a handle 92 for turning the same. A screw 94 similar to screw 84 threadedly engages the jaws 80 and 82, which are slidable in slots 72 and 74 respectively, and is held in place by a clip 96 similar to the clip 90.

Openings 98, 100 and 102 are provided in the template 66 to accommodate the routing machine 42 when routing a door edge and/or a jamb for hinges. A bracket 104 extends longitudinally of the template 66 across the opening 102. The bracket 104 is provided with openings 106 and 108, and the template 66 is provided with openings 110 and 112 for guiding a drill such as the machine 32 in drilling for a door lock, as will later appear.

The template 46 comprises a bar 114 having a block 116 near the middle thereof, and lugs 118, 120 near the ends thereof. The block 116 is recessed as at 122 to accommodate the router 42 and is provided with an opening 124 for a router bit.

A pair of clips 126, 128 each has a pivot pin 130, a spring 132 and a nut 134. The pivot pins 132 pass through brackets 136 at the ends of the bench 10 and the springs 132 hold the clips in either operative or inoperative position.

I shall now describe the operation of my door crafter. The arms 60 are placed in the position shown in Figure 2 with the blocks 62 resting on the cylindrical portions 50 of the knobs 48. A door 138 is placed on the arms 60 and the knobs 48 are adjusted so that the front edge of the door projects a short distance above the upper edge of the spacer bar 24. In this position the door 138 is held and steadied by the clips 126, 128. The door, thus positioned, may be planed and beveled as shown at 140 in Figure 2. After planing, the door is lifted slightly and the weights 64 return the arms 60 to the position shown in Figures 1, 3 and 4. This permits the door to drop onto the knobs 48 where it is in position for boring for a lock. The template 66 is placed in position as shown in Figures 3, 6 and 8. In this position holes are drilled in the door through openings 106 and 110 for a left hand door, or through openings 108 and 112 for a right hand door.

The door is now turned 180°, preferably edge for edge, and a jamb piece 142 is placed over the table top 22. A spacer 144 may be used between the table top 22 and the jamb piece 142. The template is lowered to the position shown in Figures 3 and 6 and the clamps are adjusted so that the jaws 76 and 80 hold the door 138 against the parting strip 24 and the jaws 78 and 82

3

hold the jamb piece against the parting strip 24. In this position, the routing machine operating in the openings 98 and 100, and if necessary in opening 102, forms the seats for the hinges to be used with the door 138. The door and the hinge jamb are now ready for assembly.

The recesses or seats thus formed will have rounded corners. If rounded hinges are not to be used these rounded corners must be squared by using a chisel.

A jamb piece is next placed on the table and the template 46 is positioned thereover. With the routing machine 42 operating in the recess 122 and its cutter projecting through the opening 124, a seat for the latch plate or keeper is routed.

In preparing a right hand door, the top of a door 138 is lined up with the right hand end of the parting strip, and the jamb piece is placed against the parting strip with the head jamb groove projecting past the end of the parting strip 24 approximately $\frac{1}{8}$ inch to provide head clearance between the top of the door and the head jamb. The procedure is reversed for a left hand door.

The keeper plate template 46 is positioned for a right hand door by placing the lug 120 in the groove provided in the side jamb for its head jamb. For left hand doors, the lug 118 would be inserted in the head jamb groove 148 in the side jamb 146 as shown in Figure 7.

The two jambs 142 and 146 may be packaged with the door 138 and with a suitable head jamb for assembly on the job.

It is to be understood that the foregoing is merely descriptive of a preferred embodiment of my door crafter and may be departed from in many details within the scope of the appended claims.

I claim:

1. In a device for facilitating setting of hinges on doors, a stand including a parting strip and means for supporting a door on a side edge in a substantially vertical plane against the parting strip, a template hingedly mounted on the stand, said template having openings thereon to accommodate a routing tool, transverse slots in the template, one set of jaws mounted in the slots and adapted to hold a door against the parting strip, a second set of jaws in the slots adapted to hold a jamb piece against the parting strip, screws associated with pairs of jaws for adjusting such jaws toward and from each other transversely of the template, said template having also openings for locating a drill in drilling the door edge of a door lock, a bracket on the template having openings for locating a drill in drilling the side of a door for a lock.

2. In a device for facilitating setting of hinges on doors, a stand having a table top, means for supporting a door on one side edge thereof in a substantially vertical plane, a template hingedly mounted on the stand having means for guiding a routing tool in routing seats for hinges and means on the stand for movably supporting a routing tool in the vicinity of the door to be routed.

3. The structure according to claim 2 in which the

4

means for supporting a tool comprises a track extending longitudinally of the stand above the door supporting means.

4. The device according to claim 2 in which the stand includes a parting strip extending longitudinally thereof against which the door is held for routing.

5. The structure according to claim 4 wherein the template includes a clamp for holding a door against the parting strip.

6. The structure according to claim 5 wherein the template includes a clamp for holding a jamb piece against the parting strip for routing simultaneously with routing the door.

7. The structure according to claim 2 wherein the template includes means for guiding a tool in drilling for a door lock.

8. The structure according to claim 7 wherein the guide means guide a drill in the edge and in the face of a door.

9. The structure according to claim 2 wherein the stand includes a parting strip extending longitudinally at the front edge thereof, and wherein the template includes adjustable clamping jaws moving transversely thereof to clamp a door against the parting strip.

10. The structure according to claim 2 wherein the means for guiding a routing tool comprise longitudinally spaced rectangular openings in the template.

11. The structure according to claim 2 wherein the stand includes means for supporting a keeper plate routing template.

12. The structure according to claim 2 wherein the means for supporting a door on one side edge includes means for temporarily supporting a door with the other side edge elevated slightly above the normal position.

13. The structure according to claim 12 wherein the means for supporting a door on one side edge comprises a pair of cylindrical knobs eccentrically mounted on the stand and wherein the means for temporarily supporting a door with the other side edge elevated comprises blocks hingedly mounted on the knobs.

14. The structure according to claim 13 wherein the hingedly mounted blocks include overweighting means releasing them from door supporting position upon removal of a door therefrom.

References Cited in the file of this patent

UNITED STATES PATENTS

2,355,603	Zern	Aug. 8, 1944
2,427,081	Zern	Sept. 9, 1947
2,605,790	Schwarzer	Aug. 5, 1952
2,605,791	Zern	Aug. 5, 1952
2,659,159	Jarrett	Nov. 17, 1953
2,687,753	Mount	Aug. 31, 1954
2,709,855	Graham	June 7, 1955
2,778,121	Guerrant	Jan. 22, 1957