

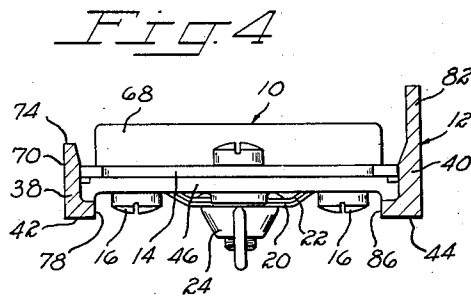
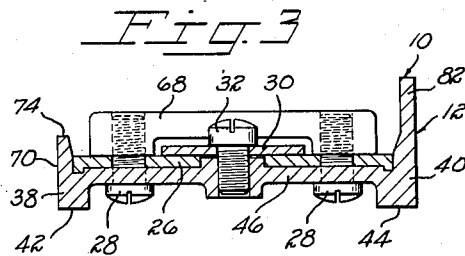
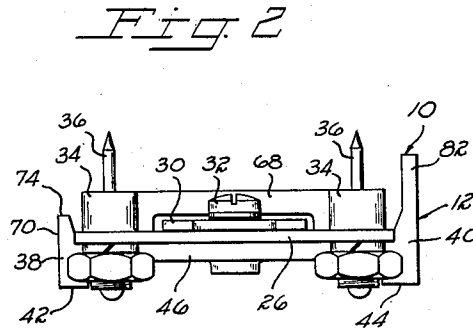
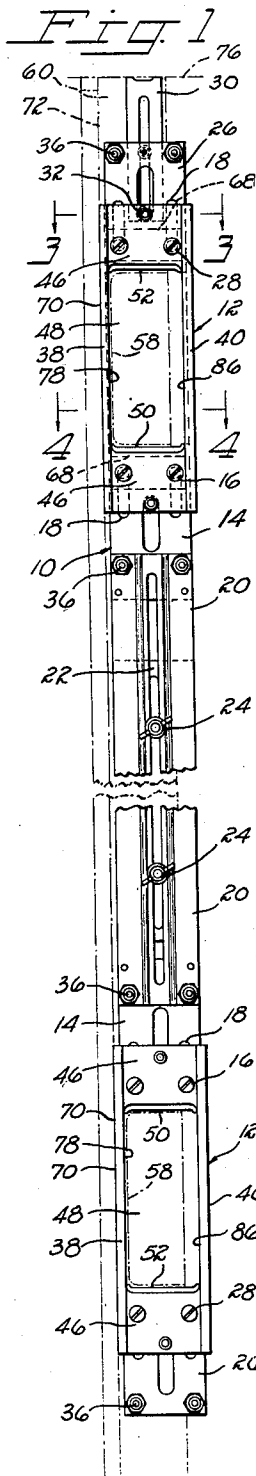
March 2, 1954

J. H. GODFREY  
MORTISING TEMPLATE

2,670,546

Filed April 19, 1950

2 Sheets-Sheet 1



Inventor  
JAMES H. GODFREY

334

Lindsey, Prutzman + Just  
Attorneys



## UNITED STATES PATENT OFFICE

2,670,546

## MORTISING TEMPLATE

James H. Godfrey, Berlin, Conn., assignor to The Stanley Works, New Britain, Conn., a corporation of Connecticut

Application April 19, 1950, Serial No. 156,909

1 Claim. (Cl. 33-197)

1

This invention relates to improvements in a mortising template, and more particularly to a mortising template for use with a router while forming companion or complementary hinge receiving recesses in the edge of a door and the face of a door jamb.

Mortising templates for the foregoing purposes usually have two or three guide frames for positioning and guiding a router while forming hinge recesses, said frames being interconnected by suitable adjustable strips so that the guide frames may be spaced apart even distances from the opposite ends of a door or door jamb. The distances the frames are spaced apart must be accurately measured so as to be exactly even due to the fact that when the interconnected guide frames comprising the template are used for forming hinge receiving recesses in a door jamb, the assembled frames are positioned longitudinally along a door jamb and, for example, accurately spaced from the top of the jamb. The same assembled guide frames are also used to form complementary or companion hinge receiving recesses in one edge of a door but the template must be turned end-for-end and accurately positioned relative to the top of the door when forming such recesses in the door. Arranging the guide frames of the assembled template in such accurately spaced position is time consuming and therefore renders the cost of forming hinge receiving recesses in a door and door jamb more expensive than if such precise accurate measurements were not required. Further, such templates are relatively complex and expensive in order to provide positioning means which are adjustable to accommodate the template to doors and jambs of different sizes and designs.

It is an object of the present invention to provide a mortising template comprising a plurality of guide frames for a router, said guide frames being provided with a plurality of simple positioning means for alternately engaging a door or jamb so as to enable the template to be used on both a door jamb and the edge of a door without requiring the template to be turned end-for-end when shifting the template from use on the edge of a door to use on a door jamb or vice versa and consequently not requiring as precise adjustment of the frames relative to each other as in presently used templates.

It is another object of the invention to arrange the simple positioning means for the guide frames of a template of the type described so as automatically to vary the width of the complementary or companion recesses in the edge of the door and a door jamb, whereby clearance will be pro-

2

vided between the door and jamb stop when the hinges are mounted in operative position within the recesses formed therefor in the edge of the door and door jamb.

A further object of the invention is to provide positioning means on the template which are of such nature as to be engageable with a door or door jamb so that the template may be accurately positioned thereon regardless of whether the door edges are rounded or squared or whether the edge of the jamb is rounded, squared, or ornamented by some other shape.

Still another object of the invention is to provide a mortising template of the type described which is rugged and durable and of simpler construction than those presently in use.

Details of these objects and of the invention, as well as other objects thereof, are set forth in the following specification and illustrated in the accompanying drawings forming a part thereof.

In the drawings:

Fig. 1 is a plan view, partially foreshortened, of a mortising template embodying the principles of the present invention and shown in operative position against a door jamb.

Fig. 2 is an end view looking from the upper end of the template shown in Fig. 1.

Fig. 3 is a sectional view of the template taken on line 3-3 of Fig. 1.

Fig. 4 is a sectional view of the template taken on line 4-4 of Fig. 1.

Fig. 5 is a fragmentary sectional view showing the template in position against a door jamb and illustrating in broken lines a router during the operation of forming a hinge receiving recess in the face of the door jamb.

Fig. 6 is a view similar to Fig. 5 but showing the template in operative position against the edge of a door while the router is used to form a hinge receiving recess in said edge.

Referring to the drawings and particularly Fig. 1, the template 10 comprises a plurality of guide frames 12 which are connected together for adjustable positioning relative to each other longitudinally of the axes of said frames by a plurality of plates 14 which are each adjustably connectible to one end of one of the frames 12 by screws 16. The screws 16 pass through slots 18 in the plates 14 and thereby limit the longitudinal movement of said plates. As is customary in templates of this nature, the plates 14 are interconnected by a plurality of tie-plates 20 to provide for greater longitudinal adjustability of the plates 14. The tie-plates 20 are united by a connecting plate 22 with which the tie-plates

are adjustable longitudinally. Bolts and thumb nuts 24 extend through aligned slots in plates 20 and 22 to maintain desired adjustable connection.

End plates 26 extend longitudinally from the other ends of the frames 12 and are adjustable relatively thereto by screws 28 extending through slots in the plates 26. The uppermost end plate 26, as viewed in Fig. 1, also has an adjustable gage plate 30 slidably connected to said end plate 26 and the upper end of the uppermost frame 12, adjustment being maintained by a screw 32. The outer end of the gage plate 30 is used to engage either the top plate of a door jamb or be placed evenly with the end surface of a door so as to accurately position the template 10 longitudinally of the door jamb or edge of a door.

It is also to be understood that, as in conventional templates of this nature, more than two guide frames 12 may be included in the template assembly by suitably arranging the length of the plates 20 and 22 to permit connection of one or more additional guide frames to the template assembly in accordance with conventional practice. The template is also provided with a plurality of sockets 34 in which positioning nails or brads 36 are slidably mounted so that the same may be driven into the edge of a door or the face of a door jamb accurately to hold the template 10 in operative position thereon while a router is being guided by the frames 12.

The guide frames 12 each comprise a pair of parallel side rails 38 and 40 having flat router engaging surfaces 42 and 44 disposed in a common plane. The frames 12 also have lateral end portions 46 which connect together the side rails 38 and 40. Said side rails and lateral end portions define rectangular openings 48 within which a router bit is received for forming a hinge receiving recess in either the door jamb or edge of a door. The length of the openings 48 is adjustable by moving the plates 14 and 26 relative to the frame 12, said plates having guide edges 50 and 52 which extend slightly beyond the inner ends of the lateral end portions 46 of the frames 12 when the plates 14 and 26 are extended to their outermost positions. The guide edges 50 and 52 comprise surfaces against which a bit sleeve 54 of a router 56 engage when forming the ends of the hinge receiving recess 58 in the door jamb 60 or the recess 62 in the edge of the door 64. The screws 16 and 28 are tightened to secure the guide edges 50 and 52 in their respective positions. The operative face 66 of the router 56 slidably abuts the flat upper surfaces 42 and 44 of the side rails 38 and 40, as shown in Figs. 5 and 6 when the router is operatively positioned relative to the guide frames 12.

Each of the frames 12 is also provided with a plurality of work engaging shoes 68 which are connected to the lateral end portions 46 of each frame by the screws 16 and 28, said screws being threaded into said shoes, as clearly shown in Fig. 3. The outermost or lower surfaces of the shoes 68, as viewed in Figs. 5 and 6, are disposed against the surface of the door jamb 60 when recesses are being formed therein, or against the edge of the door 64 when recesses are being formed in said door.

In accordance with the present invention, when the template 10 is used to form hinge receiving recesses 58 in the door jamb 60, the external lateral faces 70 of the side rails 38 of the frames are disposed in abutting position against the jamb stop 72 on the door jamb 60 as illustrated in Fig. 5. In the event the door jamb does

not come equipped from the mill with a stop 72, said stop can easily be either temporarily or permanently attached to the door jamb prior to using the template 10, or as an alternative, suitable blocks may be temporarily affixed to the door jamb 60 along the line of the jamb stop 72 so as to permit positioning of the frames 12 of the template along said line of the jamb stop. The lower edge 74 of the side rail 38 is above the work engaging surfaces of the shoes 68, whereby said lower edge 74 does not engage the door jamb 60, as can be clearly seen from Fig. 5.

The template 10 is accurately positioned longitudinally of the door jamb 60 by suitably adjusting the gage plate 30 and abutting the outer end thereof against the top 76 of the door jamb. The positioning nails or brads may then temporarily be driven into the door jamb to hold the template 10 in operative position against the jamb. The router 56 is then positioned against the flat upper surfaces 42 and 44 of one of the frames 12 and the bit sleeve 54 is moved into engagement with the guide edges 50 and 52 and the inner surface 78 of the guide rail 38. The bit 80 of the router 56 rotates within the sleeve 54 and extends below the work engaging surfaces of the shoes 68 a distance equal to the desired depth of the hinge receiving recesses 58 in the door jamb 60 when the router is positioned against the flat upper surfaces 42 and 44 of the guide rails of the frames 12. The distance between the parallel surfaces 70 and 78 of the guide rail 38 is predetermined so that the distance between the inner edge of the recess 58 will be spaced a desired predetermined distance from the adjacent parallel surface of the jamb stop 72. The hinge receiving recesses 58 in the door jamb are all routed out by the router 56 being moved relative to the guide rail 38 and guide edges 50 and 52 of the frames 12 of the template and the template is then removed from the door jamb.

Following the completion of the formation of the hinge receiving recesses of the door jamb the template 10 is placed against the inside edge of the door 64, the work engaging surfaces of the shoes 68 being placed directly against said inside surface. The gage plate 30 is accurately positioned evenly with the upper end of the door 64. In order that the template 10 may be accurately positioned transversely of said edge of the door 64, the side rail 40 is provided with a flange 82 depending below the work engaging surfaces of the shoes 68 and having an inner surface engageable with the inner surface 84 of the door 64. The nails or brads 36 are then temporarily driven into the edge of the door to hold the template 10 in operative position thereon. The router 56 is then operatively positioned against the co-planar surfaces 42 and 44 of the guide rails 38 and 40 but the bit sleeve 54 is now moved against the inner surface 86 of the side rail 40 and the guide edges 50 and 52 which guide the router and limit the movement thereof longitudinally and laterally of the door.

The distance between the inner surface of the flange 82 and the inner surface 86 of the side rail 40 is also predetermined and is slightly less than the distance between the surfaces 70 and 78 of the side rail 38. Thus, the side walls of the cavities 62 in the door 64 will be closer to the surface 84 of the door than the sides of the recesses 58 in the door jamb 60 are to the inner surfaces of the jamb stop 72, whereby when hinges are secured within the recesses 58 and

5

62 and the door is thereby connected to the door jamb, there will be adequate clearance between the inner surface 84 of the door and the inner surface of the jamb stop 72. After all of the cavities 62 have been formed in the inside edge of the door 64, the template is removed therefrom and the hinges may be connected to the door and jamb.

It will thus be seen from the foregoing that the present invention provides a mortising template which may be simply and conveniently attached to a door jamb by abutting the external lateral surfaces of the template guide frames against the jamb stop so as accurately to position said guide frames in a lateral direction with respect to the door jamb. Also, said template may conveniently be positioned against the inside edge of a door and the inner surface of the depending flange on each guide frame is positioned in abutting engagement against the inside surface of the door so as to position the template relative to the door in a direction transversely thereto. The template is not reversed end-for-end when being positioned on a door or a jamb or vice versa, as is now necessary when using conventional templates for forming recesses in doors and jambs.

Further, the template comprising the present invention may conveniently and accurately be positioned on doors and jambs regardless of the surface conditions of the outside edges of the door and jamb. For example, while some doors are mounted flush with the jamb and both are square-edged, other doors are mounted below flush with the jamb and the edges are rounded. In still other conditions, the jamb edges may be rounded or even heavily ornamented so as to render them highly unsuitable for accurately positioning a template relative to such outer edge of the jamb. Further, in addition to the tem-

6

plate comprising the present invention being rugged and durable, it is also materially simpler than templates presently in use.

While the invention has been illustrated and described in its preferred embodiments and has included certain details, it should be understood that the invention is not to be limited to the precise details herein illustrated and described since the same may be carried out in other ways, falling within the scope of the invention as claimed.

I claim as my invention:

A template comprising an open frame having parallel side rails spaced apart by transverse end portions, said end portions having shoes facing in one direction for engaging against the edge of a door or the face of a door jamb, said side rails having parallel edges facing in the opposite direction for supporting a router and having confronting parallel inner side faces for guiding a router bit sleeve, one of said side rails having an outer side face parallel to its inner side face and spaced a predetermined distance therefrom for abutting against a jamb stop, and the other side rail having a flange extending in said one direction beyond the work engaging shoes for engagement with the side of a door, said flange having an inner side face parallel to and spaced at slightly less than said predetermined distance from the inner side face of said other side rail.

JAMES H. GODFREY.

#### References Cited in the file of this patent

##### UNITED STATES PATENTS

| Number    | Name          | Date          |
|-----------|---------------|---------------|
| 1,524,234 | Carter .....  | Jan. 27, 1925 |
| 1,644,666 | Carter .....  | Oct. 11, 1927 |
| 1,740,473 | Meyer .....   | Dec. 24, 1929 |
| 1,788,256 | Sherwin ..... | Jan. 6, 1931  |