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ADJUSTABLE TEMPLATE FOR ROUTING FIXTURE

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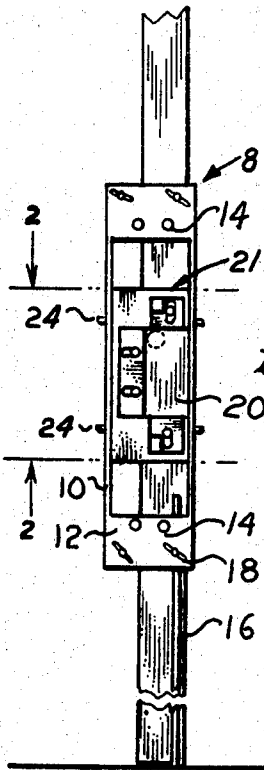


FIG. 1

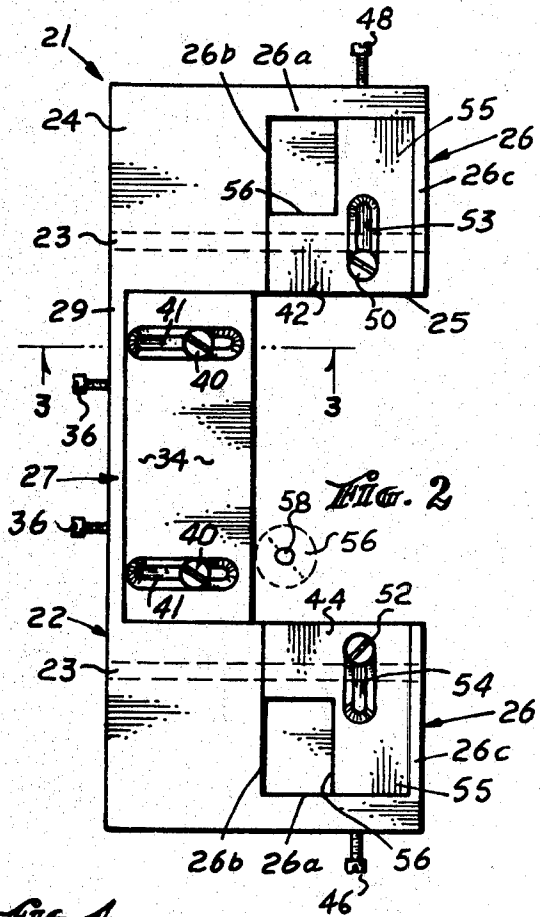


FIG. 2

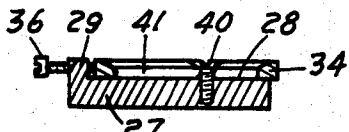


FIG. 3

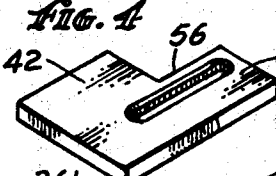


FIG. 4

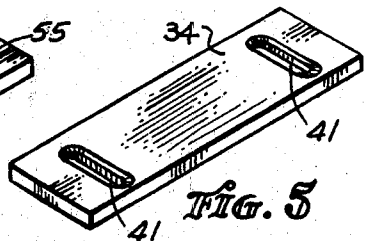


FIG. 5

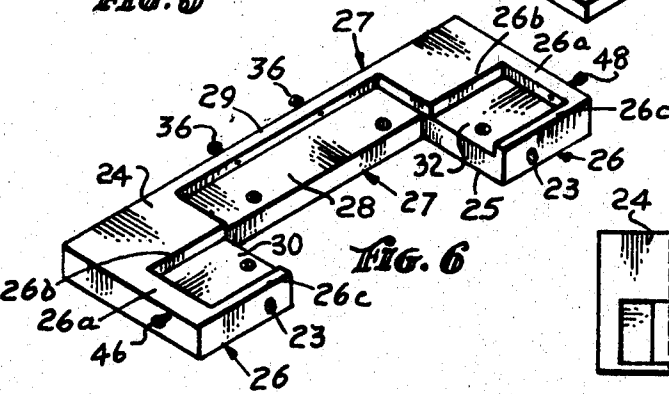


FIG. 6

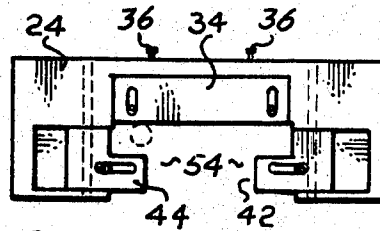


FIG. 7

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ADJUSTABLE TEMPLATE FOR ROUTING FIXTURE

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4 Claims

ABSTRACT OF THE DISCLOSURE

Apparatus comprising a universal finely adjustable template to be placed in a conventional routing fixture to take care of variously sized locks, strikers and hinge plates. The template base having side recesses and opposed end recesses of exact similarity. Metal template plates are received in recesses and are adjustable by adjustment screws in the base and are fixed in their adjustment by fixing screws received in slots in the plates. The templates plates received in the end recesses are reversible to define a different pattern to be routed.

Carpenters usually carry conventional routing fixtures which are adaptable for use in recessing locks, strikers and hinge plates. These well known routing fixtures have a template opening in which patterns of various kinds are placed and either routed or chiseled out as the case may be.

Applicant desires to place a specially designed adjustable template in the conventional routing fixture to make the device adaptable to any condition of use and to make the routing operation relatively easy.

One of the objects of the invention is to provide a finely adjustable template in the opening of a conventional routing tool so that the apparatus is immediately adaptable to any size or shape of lock, striker and hinge plate.

These and other objects and advantages of the present invention will become apparent to those skilled in the art upon consideration of the following detailed description of the preferred embodiment thereof, reference being made to the accompanying drawings, herewith, wherein:

FIG. 1 is an elevational view of the conventional routing fixture and attached adjustable template in position of use for door locks or hinge recession;

FIG. 2 is a plan view of the special adjustable template;

FIG. 3 is an enlarged sectional view taken on the line 3—3 of FIG. 2;

FIG. 4 is a perspective view of one of the opposed adjustable template plates;

FIG. 5 is a perspective view of the side adjustable template plate;

FIG. 6 is a perspective view of the template base that is connected to the conventional routing fixture; and

FIG. 7 is a plan view of the adjustable template in one of its positions of use.

In the drawings, the conventional routing fixture is illustrated diagrammatically. It is shown in FIG. 1 with applicant's universally adaptable finely adjustable template attached thereto. The routing fixture 8 is produced and sold by several large companies. It has side walls 10 and end plates 12 the fixture being adjustable to a door 13 by piercing spikes or pins 14. Vertical adjustment is accomplished generally by means of rods 16 through the fixture controlled by wing nuts 18 or the like. The fixture 8 has a large rectangular aperture 20 and is adjustable lengthwise on the door 13 by movement of the pins 14.

The present invention comprises a simple adjustable template 21 that fits into the opening 20 in the conven-

tional routing fixture 8. This template consists of a flat rectangular base plate 22 that is drilled at 23 to receive pins 24 provided on the fixture 8 and is thereby fastened securely on said fixture in the opening 20.

The base plate 22 has a rectangular cut 25 taken out of one side leaving overhanging end portions 26 extending laterally from a relatively narrow connecting back portion 27. Upper surface portions of plate 22 are milled out to form a shallow rectangular guide plate mounting recess 28 in back portion 27, end faces of which are coplanar with ends of rectangular cut 25 and leaving a wall 29 along its back edge. Smaller shallow recesses 30 and 32 are formed in base end portions 26 which open inwardly on opposite ends of cut 25 and are symmetrically disposed with said cut and aligned with each other, and are narrower than said cut so as to leave material of said base end portions 26 forming back walls 26a and parallel side walls 26b and 26c bordering recesses 30 and 32.

The side slide recess 28 has slideably and adjustably disposed therein a side metal template plate 34. A pair of adjustment screws 36 extend through the recess wall 29 and bear against the outer edge of the side template plate 34. The finest degree of adjustability is provided by these screws in connection with dual set screws 40 which extend through slots 41 in plate 34 and hold the plate 34 in fixed adjustable position ready for the routing operation.

The opposed end recesses 30 and 32 receive in slideable adjustable positions a pair of end template plates 42 and 44, respectively. The end template plates have a similar finely adjustable positioning by means of screws 46 and 48, respectively, in the end walls 26a of base 22. Likewise a pair of tightening and fixing screws 50 and 52, respectively, extending through slots 53 and 54 insure exact positioning of the end plates.

It is apparent that any degree of fine adjustment may be made by this universal template to attain exact rectangular routing recessing for the lock, striker and hinge plates. Variation in size is readily provided for by the adjustment which is quickly and easily made. There are circumstances wherein a routing aperture such as 54 in FIG. 7 is required. In this case the operator merely detaches the end template plates 42 and 44 and arranges them in adjustable opposed position as shown where they are secured in the usual manner. The end template plates 42 and 44 may be rearranged further in opposed position if desired.

The operation of the device is relatively simple. The attachment to the conventional routing fixture is obvious. The fine degree of adjustment of the side and end template plates makes the structure universal in use. The universal template is particularly adapted for the routing operation as shown in FIGS. 1 and 2. The rotatable sleeve 56 of the conventional router 58 bears against the fixed metal side and end templates and one side of the conventional hinge routing fixture and keeps the router blade about a quarter inch away which must be taken into consideration in connection with the exact size of the recess desired. Otherwise, the operation of the device is reasonably simple, fast and accurate.

Attention is drawn to the L shape of end templates 42 and 44 and the alinement of the slots 53 and 54 with the stems 55 of these plates. Each of these end template plates thus has a rectangular notch 56 in one corner thereof, and these plates may be optionally employed, in using the invention, either as shown in FIG. 2 or as shown in FIG. 7.

When the end template plates 42 and 44 are disposed as in FIG. 2, with their corner notches 56 disposed within the template mounting recesses 30 and 32, broad end

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faces 60 of said end template plates face inwardly. This permits a small inward adjustment of template plate 34 with any desired coordinated inward adjustment of either or both of template plates 42 and 44. On the other hand, if the end plates are retained in their maximum degree of separation, as shown in FIG. 2, the side template plate 34 is free to be shifted inwardly to any adjusted position within its maximum range.

The invention adds considerably to the range of adjustability above described by the change in relationship between the side and end template plates produced by removing the screws 50 and 52, rotating the end template plates 42 and 44 to the positions in which these are shown in FIG. 7, and replacing said screws.

This arrangement permits a much greater degree of adjustment of the side template plate 34 while also allowing for a substantial inward adjustment of one or both of the end template plates.

It has been found in commercial use of the present invention that it may be readily invested (in designing the tool) with a capacity for adjustment adapting it for meeting all the varying requirements for a template used in conjunction with a conventional routing fixture 8.

I claim:

1. A template device capable of attachment to a conventional routing fixture and to be held thereby in a predetermined aligned relationship with the work, said device comprising:

a flat base plate which is rectangular in outline with a rectangular cut in one side thereof leaving a narrow central portion of said plate between said cut and the opposite side, and overhanging opposed end portions between said cut and the base plate ends; there being

shallow slide recesses formed in the upper surfaces

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of said central and overhanging end portions of said base plate, each such recess opening on said rectangular cut;

individual template plates mounted in said slide recesses; and

means for fixing and adjustably varying the respective positions of said template plates in said slide recesses.

2. A device as recited in claim 1 wherein said slide recess in said central portion of said base plate is coextensive in length with said cut.

3. A device as recited in claim 2 wherein said slide recesses in said opposed end portions of said base plate are narrower than and symmetrically related with said cut.

4. A device as recited in claim 1 wherein said individual end template plates are L-shaped and are adapted for optional inversion in their respective slide recesses to optionally present their broad base ends or narrow stem ends to the space within said cut, said stem ends when so presented, permitting an increased extension into said cut of said central template plate, while still permitting a substantial degree of longitudinal adjustment to said end template plates.

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