

# How to Use



## Record Router Plane No. 071

MADE IN ENGLAND

## The No. 071 Record Router Plane

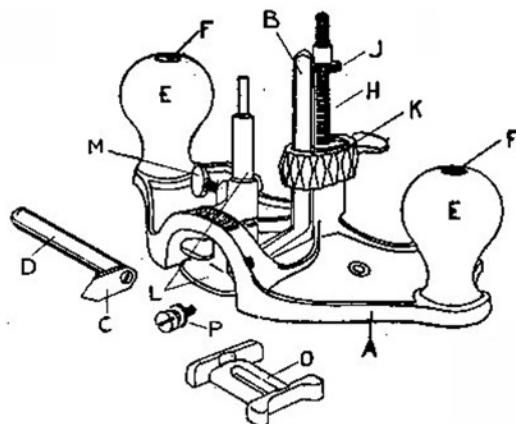


FIG. 1.

- |                            |  |
|----------------------------|--|
| A. Body.                   | J. Cutter Adjusting Nut.                   |
| B. Cutter.                 | K. Cutter Clamping Collar and Thumb screw. |
| C.D. Finishing Cutter.     | L. Depth Gauge and Shoe.                   |
| E. Knobs.                  | M. Depth Gauge Thumbscrew.                 |
| F. Knob Bolt and Nut       | O. Fence, with Screw and Washer P.         |
| H. Cutter Adjusting Screw. |  |

Record No. 071 Router may be used either as an Open-mouth or a Closed-mouth router.

When used **closed mouth**, the shoe (L) is secured as in the illustration. Correct setting is easily obtained by resting the router on a plane surface with the thumbscrew M slack, this then being tightened up when the shoe is level with the sole of the router. Experienced craftsmen may prefer to set the shoe one shaving thickness (about .001") below the sole.

When used **open mouth**, the shoe and depth gauge are removed from the router.

The cutters may be used for normal work in the position shown in Fig. 1, or they may be used for **bull nose work**, in which case they will be set in the rear slot (Fig. 1, behind K), the clamping collar being then reversed, i.e. with its thumbscrew to the front.

To insert the cutter, slacken the clamping collar thumbscrew K, raise the collar, and push up the cutter from the bottom. Engage the slot of the cutter in the cutter adjusting nut J. Lower the collar, adjust nut J to raise or lower the cutter so that its cutting edge is slightly below the sole. Tighten clamping screw K.

Insertion for bull nose work is similar, except that the cutter goes in the back groove instead of the front one.

Clamping collar K should be set as low down as it will go, this giving a better cutting action than when it is set higher as in the illustration, Fig. 1.



FIG. 2.—Normal work on a through housing.

In **recessing housings**, (Fig. 2) preliminary sawcuts (on the waste side of the line) should be made across the grain. The cutter being set as above, cuts are then made from the end of the housing; in the case of a through housing, from each end—the object of this being to avoid a breakaway at the finishing end. When the cutter has taken this portion out, thumbscrew K is slacked half a turn, nut J is advanced a turn, and K is tightened up. This puts the cutter ready for the next deeper cut, which is made as before. The knack of adjusting the two screws quickly is easily acquired, and can usually be done on the return stroke. This method is quicker than first setting the cutter the full depth of the housing and then "hacking out" the chips; it is easier in operation; and the cutter remains sharp longer. Gauge marks may be made on the work to indicate correct depth; or use may be made of the  $\frac{1}{16}$ " divisions which are scribed on the cutter, by noting their position in relation



FIG. 3.—Using the straight fence for making a stopped groove.

to the top of the pillar; or use may be made of the depth gauge as described on page 5.

The fence is not required in normal routing.

The **square ended cutters** ( $\frac{1}{2}$ " and  $\frac{1}{4}$ ") are for normal work. The pointed cutter (Fig. 1, C) is for those occasions when the surface of the recess must be left smooth. When using this smoothing cutter, if the dimensions of the work allow it, it will be found advantageous to work with a sideways, shearing cut.

When the recess to be cut is wider than the router is long, a board about  $\frac{1}{2}$ "  $\times$  4" (these dimensions can be varied a lot), and long enough to stretch across the proposed recess, should be attached to the sole with No. 8 C/S screws through C/S holes which will be found drilled through the sole. Before the board is screwed on, it should be marked for the opening (from the sole of the router) and the clearance cut away with the bow saw. The operation is then as described above.

The threaded holes in the sole are for the attachment of the **Fence** (Fig. 1, O) which is fitted under the sole, and may be used on either side of the cutter. The grooves which are milled on the sole will keep the fence square, and the appropriate hole is chosen which will set the fence at the desired distance from the cutter. With the aid of this fence, stopped grooves  $\frac{1}{2}$ " or  $\frac{1}{4}$ " wide, according to which cutter is used, can be made.

For this operation the shoe must be secured in the "close-mouth" position. The fence must then be set with its straight face at the desired distance from the face side of the work. Usually in this type of work mortices are already made at the stopped ends of the proposed grooves. If not, a mortice should be cut at that end as deep as it is proposed the groove should go.

The cutter being set a trifle below the surface of the sole, a cut should now be made from the end of the work towards the mortice, keeping the fence well up to the work (as in ploughing). On the return stroke slack thumbscrew K, advance nut J, tighten thumbscrew K and make another cut. Repeat until the desired depth is cut. (Fig. 3).

The operation is not as complicated as the description suggests, and after a little practice it becomes almost automatic.

That face of the fence which is opposite the straight face is so designed that it will follow a curve either outside or inside. It is used in a similar way to the straight face, except that it follows a curved edge instead of a straight one, and that the grain of the wood must be more carefully studied. It will be found that in making a groove in a circular or oval base that two quarters can be done with the fence on one side of the router and the other two quarters can be done with the fence on the opposite side of the router.

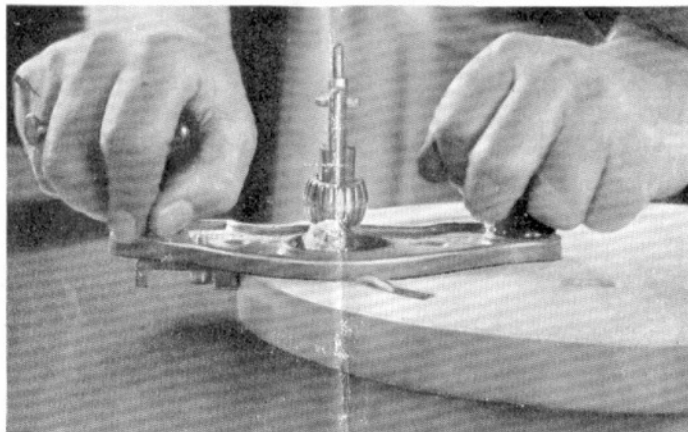


FIG. 4.—Using the round fence for making a curved groove.

The **depth gauge and shoe** (Fig. 1, L) can be used in two ways.

When detached from the router, it forms a handy **depth gauge** for testing, say, a series of blind mortices which it is desired shall be the same depth. In this case the shoe (which forms the stop) will be so attached that the thinner end of the gauge can be inserted into the mortices (or similar holes or recesses).

When used in conjunction with the router, the router is set up as an open-mouth router. The thin end of the gauge pointing downwards is then inserted into its hole and pushed through until its end projects the desired depth below the sole. The shoe is then attached above the pillar, securing the shoe thumbscrew, but leaving thumbscrew M slack so that the gauge is free to move upwards. Whilst routing is being done the shoe will not fall on to the pillar until the desired depth is reached. As soon as it touches the pillar the worker will know that he has gone deep enough.

The cutters should be kept sharp, and can be sharpened on an oilstone or with an oilstone slip. They should be sharpened on the bevelled side only, merely wiping off the wire edge on the flat side. The edges of the normal cutters should be kept square and the finishing cutter shaped to a 90 degree point. The cutters may be ground on a grindstone as indicated in Fig. 5.



FIG. 5.

Further uses to which the router may be put are shown in the book *Plancraft* which may be obtained through any good tool merchant.

Spare parts are obtainable. In ordering quote Record Router No. 071 and the name of the part required.

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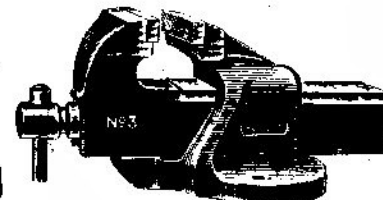
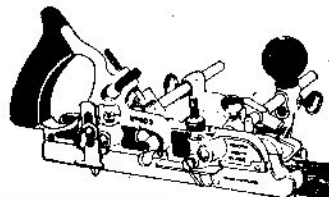
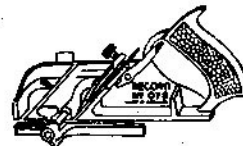
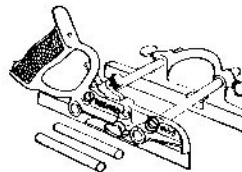
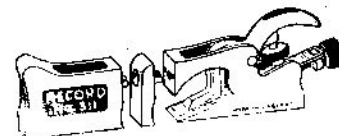
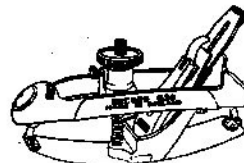
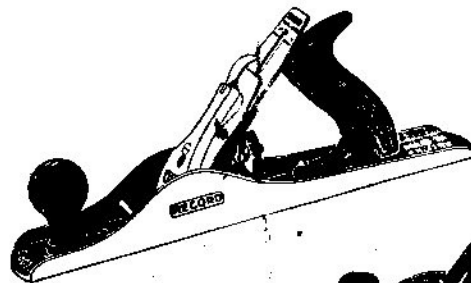
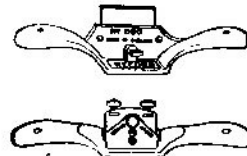
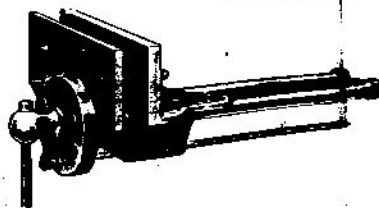
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