## IN THE WORKSHOP

# J. A. Radford, in New Zealand, describes some modifications to his Myford Lathe

I HAVE NEVER been happy with the design of the top-slide of my Myford Super 7 lathe for a number of reasons.

1st The top-slide must be set at an angle in order to get the tool close to the centre without excessive overhang of the tool.

2nd When screwcutting coarse threads such as worms or hobs where the slide must be set parallel to the bed so that accurate thicknesses of teeth can be cut, it is necessary to set the tool with excessive overhang.

3rd The tool is not well supported due to the round base design even though the tool is set with minimum overhang.

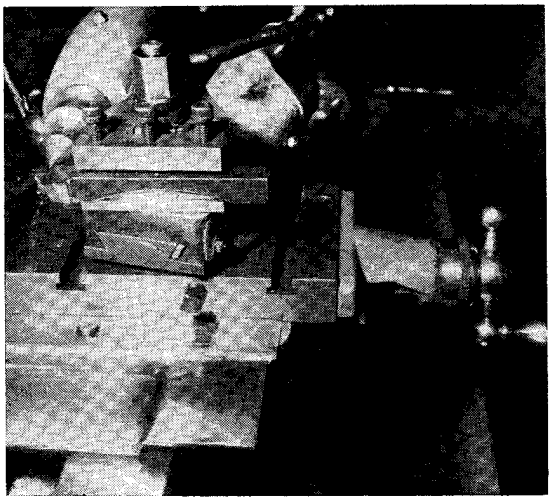
4th The method of locking the top-slide by means of two square head set screws is not very secure. Tightening the screws results in altering the gib adjustment of the cross-slide.

5th Swivelling the slide close to 90 deg. results in fouling of the handles of the top and cross-slides so that neither can be used in this position.

6th With the top-slide set over to clear the tail-stock when turning between centres, the slide cannot be used for its purpose as the graduations are meaningless and any movement at all destroys the readings of the cross-slide.

I finally got thoroughly browned off with these faults and decided to do something about it. I thought at first of a square fixed base, but soon realised that for screwcutting and shouldering to accurate thickness a top-slide movement is necessary. I realised however that only a very small percentage of turning requires a swivelling slide and that most or nearly all turning could with advantage be done with a fixed top-slide where the setting for parallel turning is accurate and automatic.

It takes but a moment to slide the new top-slide off the cross-slide and drop in the original but modified top-slide for those short acute tapers where the taper turning attachment cannot be used. For long tapers I use the new top-slide with the taper turning attachment by using the extra top-slide as shown in 'Postbag' 6th Nov. 1970: this makes it very easy to



*The tool is not too well supported on the existing top-slide.*

position the tool. I would like to say that of all the fixtures I have made for the Myford Lathe, none has given me more satisfactoin to make and use than this new top-slide. The improvement in finish, accuracy and weight of cut that is possible has to be seen to be believed.

With only ½ in. overhang of my ½ in. square tools I can get the tool well past the centre line with the tailstock in position and the overhang of the tail-stock barrel is at a minimum, especially as I use a standard tungsten carbide tipped centre which is a little longer than the Myford one. The top-slide can be set ½ in. towards the tailstock if necessary without preventing the tailstock from coming against the saddle. There is ample top-slide movement and if turning is done with the top-slide the work is always dead parallel without setting.

*The tool is well supported on the new top-slide.*