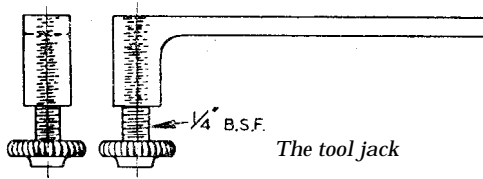


Less Chatter, Please

WITHOUT a doubt, every turner has a certain amount of trouble parting-off metal in the chuck. We amateurs seem to suffer most, principally on account of the size of machine we use ; but even the professional turner with the best of equipment, still seems to have a fair amount of bother.

There have been many toolholders and gadgets described in various forms which give added rigidity to the tool, but all I have seen have never bothered to get over, to my mind, the principal cause of the trouble ; that is deflection of the top-slide when used in its normal position.

We know, of course, that it is preferable to



The tool jack

turn the top-slide parallel with the chuck, but with many small lathes this is tedious to perform owing to having to shift the clamp-bolts. Also, it is advised to use a rear toolpost, turning the parting tool upside down. This is all very well if we have one, but on many jobs they are apt to get in the way.

Having a fair amount of parting-off to do, I decided that something would have to be done about this charter, so I made the little tool illustrated, which has completely banished all my troubles.

I use ordinary "Eclipse" or "Darwin Toledo" parting-off blade type cutters, just

clamped under the toolpost with my tool jack placed underneath, which is so made as to give correct height to the tool. I have had no bother with the tools tipping sideways ; and for speed of changing, find it perfectly satisfactory.

Of course, to take the matter to its logical conclusion, one could make a holder on the Armstrong or Jones and Shipman principal, and fit it with the elevating screw to give the support under the tip of the tool, which is the main object of the whole principle ; but still not as good as the method described, for the simple reason that the tool has to project from the holder and would not be supported under its tip.

I now use this support for nearly all screwcutting, especially square and Acme threads, and find that it gives excellent results. When turning cranks, it really comes into its own ; using slow speed, there is very little fear of a dig in.

Its main points are ease of adjustment, and, secondly, which is the most important of all, complete rigidity of the tool, taking the load immediately under the cutting point.

One presumes, of course, that the tool is correctly ground, and that the lathe bearings are correctly adjusted ; if not, well, one cannot expect to turn true. I have a shrewd suspicion, however, that this jack would help a lot by eliminating one of the sources of trouble, i.e., tool deflection.

I am not giving any dimensions, as they are fixed by the size and make of the lathe, but anyone can see how it works and how best to adapt it for their own use.

My advice to all who use lathes is to try it ; I am sure that they will find it most useful and well worth the small effort needed to make it.

TIM.

Sketch showing the jack in position on the top-slide

