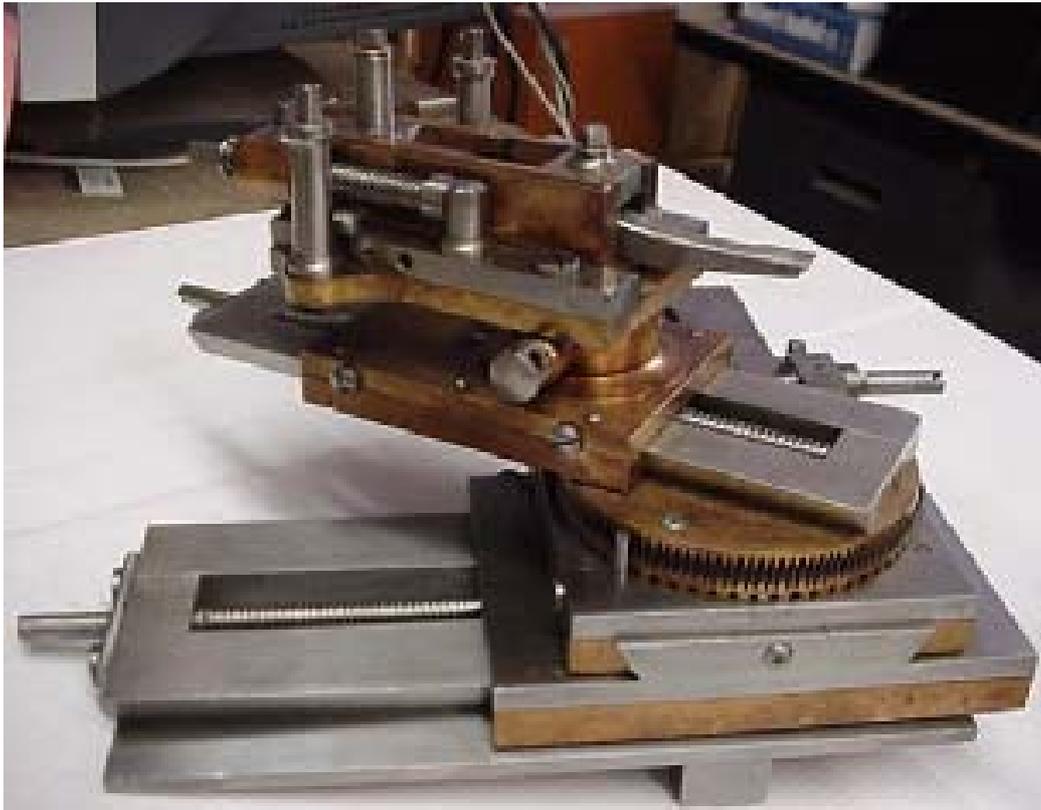
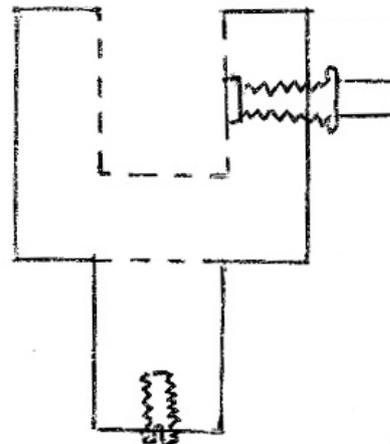


Q: How can I raise the height of my 5" Spherical Slide-rest?



A: The tool-slide of a Spherical Slide-rest has a spigot beneath which fits into a Collar. It has a screw in the bottom for fine adjustment of the centre-height. The Tool-slide may also be rotated and clamped out of line with the rotary slide, thus allowing a Horizontal Cutting Frame held in the tool-slide to be set further back to give a larger cutting radius.

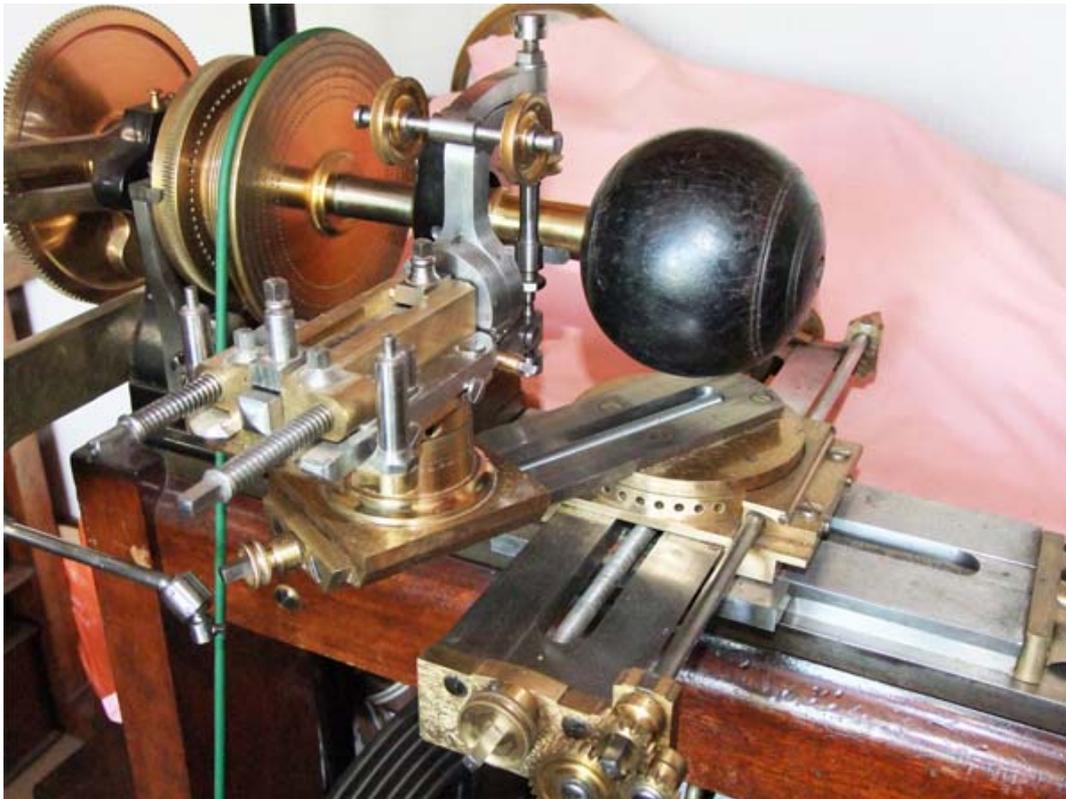
The most effective method of increasing the height of a Spherical Slide-rest is to extend the Spigot because this also extends the capacity of the rest. The spigot is about 1" long, so it is possible to extend the height of the tool-slide by about 1¼" or more by making an extension piece.



The disadvantage of a lathe with low centre height is that the size of work that can be turned is limited by any eccentricity applied to the work and by any equipment that has to be positioned directly underneath the work. The x and y slides of the Spherical Slide-rest typically take up 2" of centre height, thus if a true part-sphere is to be turned, the maximum radius of the work is reduced from 5" to 3" and, if the Eccentric Chuck is also used and set to an eccentricity of, say, 2", the maximum radius of the work is reduced to 1". In these circumstances consideration should be given to increasing the height of the lathe heads by a set of raising blocks.

The most popular and useful thickness for such blocks is $1\frac{1}{2}$ " , thus raising a 5" lathe to $6\frac{1}{2}$ " and allowing a $6\frac{1}{2}$ " Spherical Slide-rest, or a 5" one with spigot extension to cut a maximum convex radius of 5" .

However, if the required extension is less than $1\frac{1}{4}$ " either the rest must be altered, by removing the collar and replacing it with a longer collar, or, if the slide-rest is considered too valuable to make a permanent alteration, the extra capacity must be sacrificed and the whole rest must be mounted on a raising block of the required thickness.



Here is a $6\frac{1}{2}$ " height Spherical Slide-rest with the tool-slide off-set to provide extra capacity for the Horizontal Cutting Frame. This lathe has $1\frac{1}{2}$ " raising blocks under head and tailstocks, thus raising it from 5" to $6\frac{1}{2}$ " centre height.