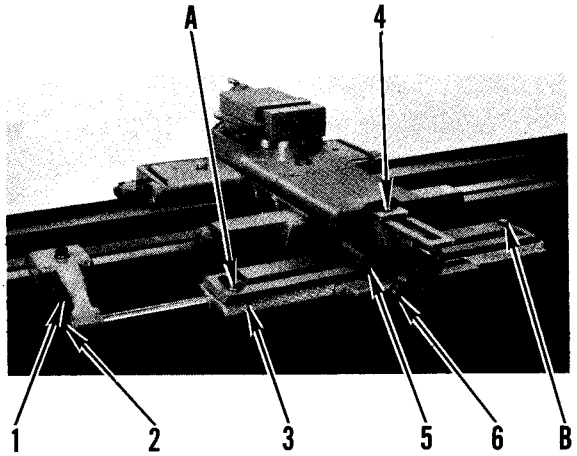
Taper Attachment

The Regal telescopic taper attachment, Figure 15, is ruggedly constructed, accurately machined and simple to operate. Capacity on the 15" Regals is 3-1/2" (89 mm) maximum taper per foot and will turn 10" (250 mm) at one setting. Capacity on the 19" Regals is 3-1/2" (89 mm) maximum taper per foot and will turn 15" (380 mm) at one setting.

Fig. 15



When the carriage is brought into position for taper turning, the bed bracket (1) is locked on the bed ways. The slide rod draw bar is then locked by nut (2). The swivel guide bar (3) is adjusted to the desired taper by loosening nuts (A) and (B), adjusting to the proper taper and retightening nuts (A) and (B). This guide is graduated in inches on one end and degrees on the other.

With the taper bar clamp nut (4) loosened, the tool is moved into position and nut (4) relocked. When the carriage feed is engaged, the bed bracket and connecting rod hold the lower taper bar in a fixed position in relation to the bed and work. Movement of the carriage, slides gibbed block (5) along the taper bar.

The taper attachment bottom slide draw bar, in its locked position, prevents the cross slide from being moved. The compound rest dial is used in sizing for taper turning. For this reason the compound rest should be at the zero setting and square with the carriage. Avoid unnecessary overhang of this slide to prevent chatter. Lock screw (6) should be used during conventional turning.

Chasing Dial

The chasing dial, Figure 16, permits the operator to take a cut, back the tool out and return the carriage to the starting point, set the tool for the next cut, and re-engage the half nut to pick up the same lead without stopping or reversing the spindle.

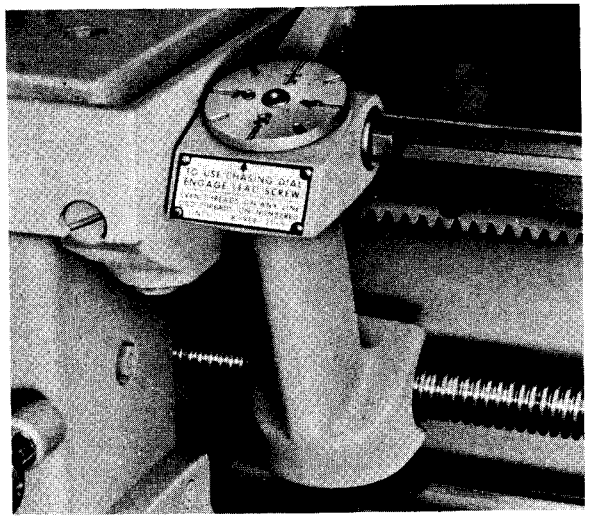


Fig. 16

The chasing or thread indicating dial consists of a worm wheel, which runs in the leadscrew, and a shaft connected to an indicating dial. When chasing even numbered threads, the half-nuts may be engaged at any line on the dial, odd numbered threads at any numbered line and half-threads at any odd numbered line.

Steady Rest

The steady rest, Figure 17, provides a fixed support between the head and tailstock for long round work while it is being turned. The rest is also used to support one end of the workpiece when operations such as boring are performed.

Steady rests are clamped in position on the bed by clamp nut (A). Proper position is generally in the center of long workpieces for turning, and on one end for boring. Two types of jaws are generally used on steady rests, plain or bronze type and roller jaws -- adjustment of these jaws should be made in the following manner. Always adjust the bottom jaws first.