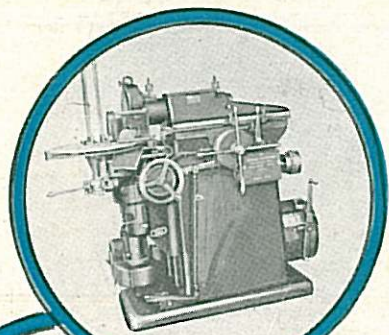
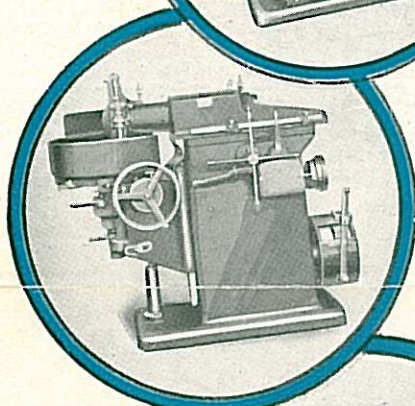


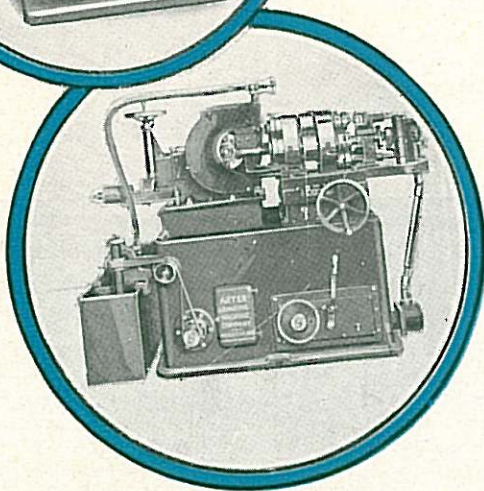
In addition to the No. 132 Automatic Cylindrical Grinder the Arter Line embraces three other types of grinders. Each of these is recognized by leading manufacturers as standard equipment for jobs within their range.



The Arter Automatic Ring Grinder is in wide use in piston ring plants grinding the sides of rings. One plant alone has 32 machines on which over 100,000 rings are finished daily. Thickness is maintained within .00025" with absolute parallelism.



Arter Rotary Surface Grinders are made in three sizes—8"—12"—16". They handle a wide range of production work, and the smaller size fits nicely in the toolroom. Each has a powerful magnetic chuck, tiltable work table, and great vertical range.



The Arter Automatic Head Grinder is employed to grind the ends of work of cylindrical section, square or otherwise in relation to the axis. Valve tappets, bearing rolls, bushings and the like are handled rapidly and finished to the nice degree of accuracy required.

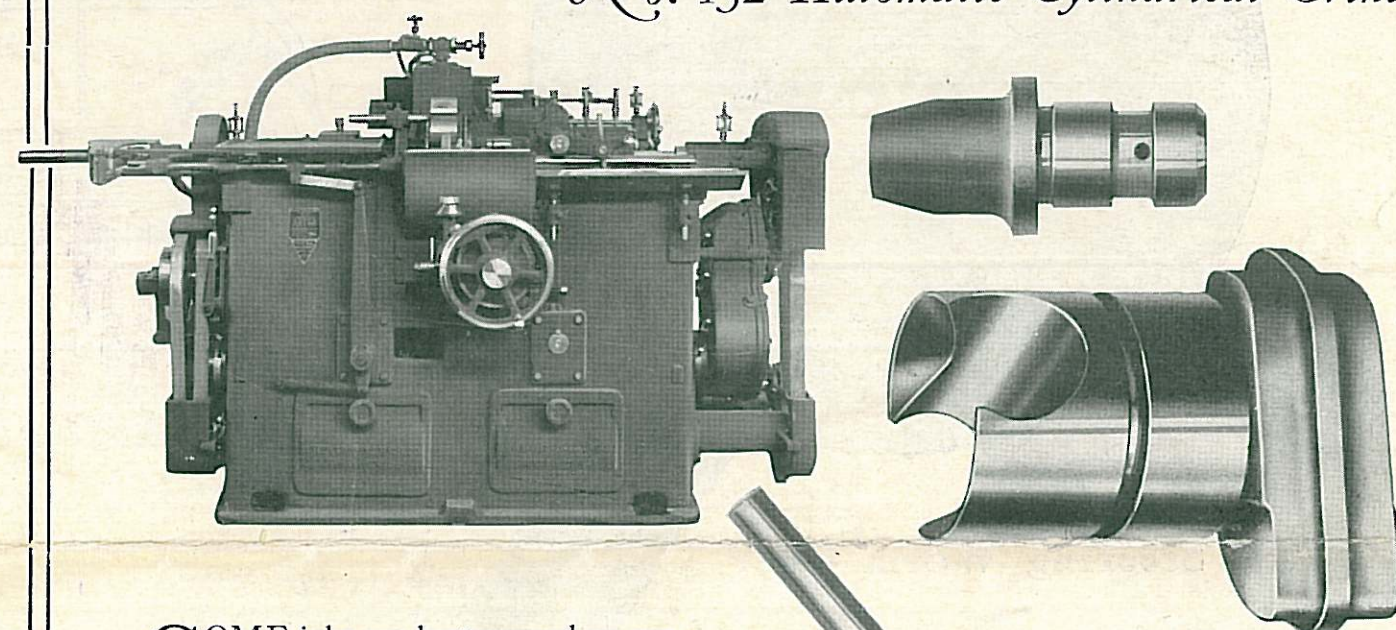
*Send for Bulletin*

**THE ARTER GRINDING MACHINE CO.**  
15 SAGAMORE ROAD, WORCESTER, MASS.

# ARTER

## Precision Grinding Machines

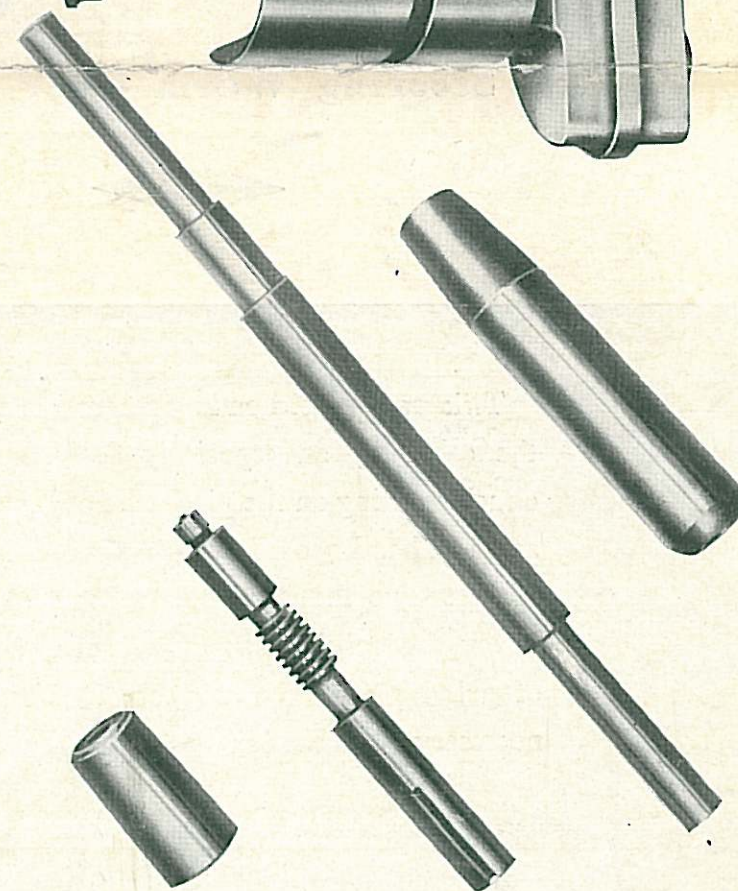
*No. 132 Automatic Cylindrical Grinder*



**S**OME jobs are best ground on centers. Particularly where two or more diameters must be ground concentric—the outside diameter concentric with the bore—or square with the end face.

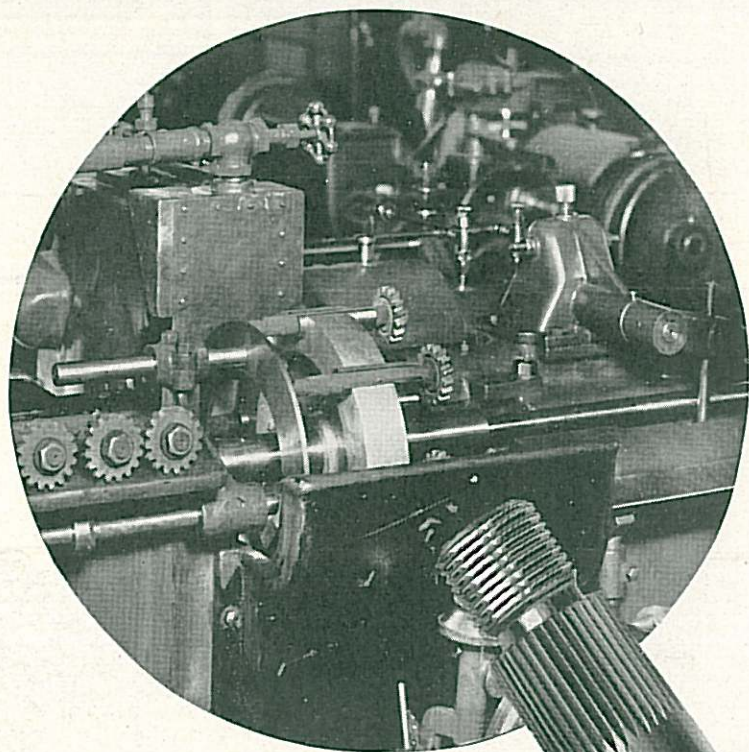
Grinding on centers permits the taking of heavy cuts. Many jobs, therefore, are finished in one grind on the Arter Automatic Cylindrical Grinder, and never take more than two. Thus excessive handling is unnecessary.

A feed drum carries the work between centers. The holes therein are bored as closely together as the work permits. This construction and fast indexing reduces time between grinds to a minimum. The centers drive the work and grinding is done by the full width of the oscillating wheel.

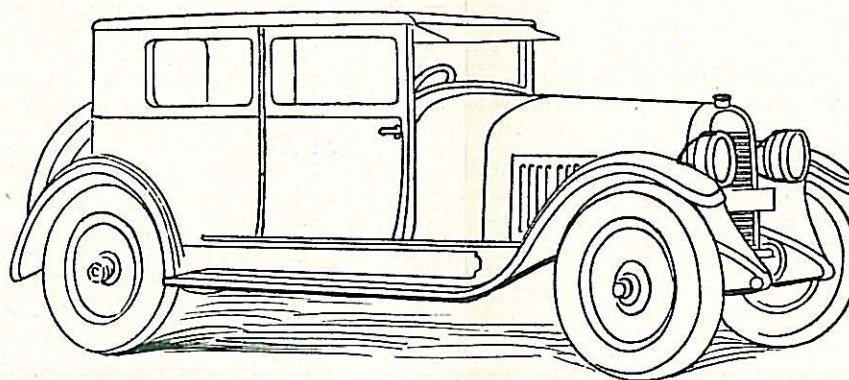


*Accuracy .. Speed .. Quality*

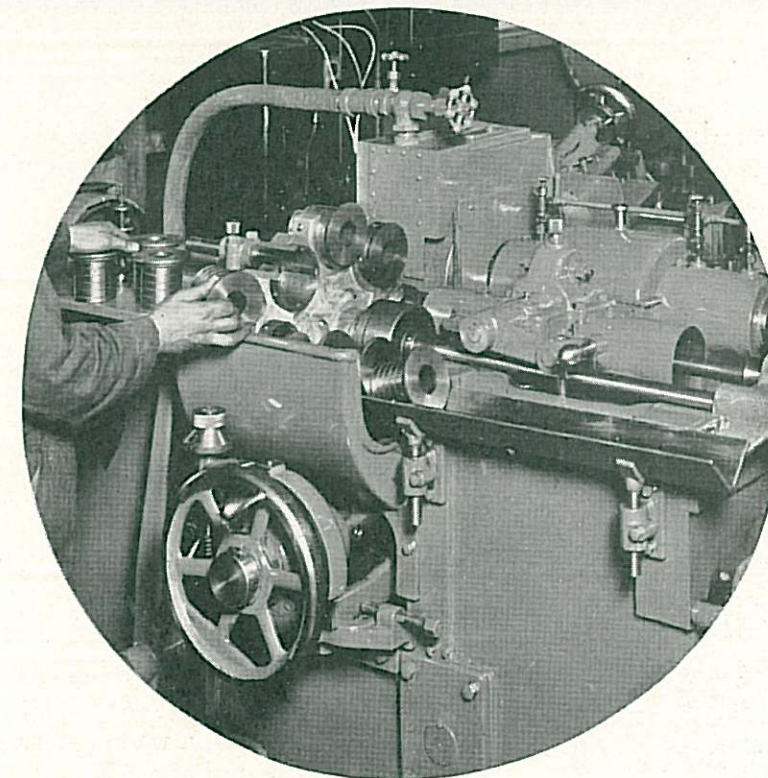
# Astonishing Increases in Production Effected by these Two Typical Installations



Steering Worm Gear



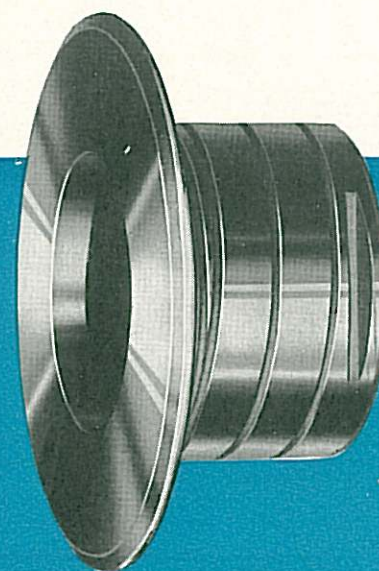
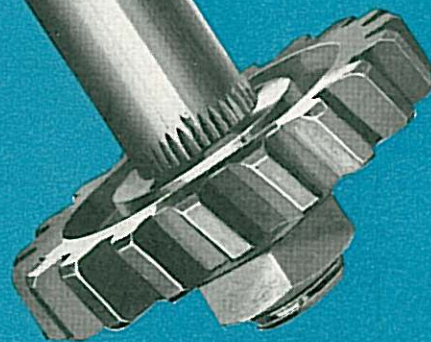
No. 132 Automatic Cylindrical Grinder



Clutch Sleeve



This part is held on its center in one end and at the other by an especially designed three ball chuck locating on the pitch line of the gear. Right and left hand gears having a pitch diameter range of forty-two thousandths are handled by the one chuck, thus minimizing the cost of tooling. Length of grind  $5\frac{1}{2}$ "—tolerance .001". One grind only necessary—production 150 pieces per hour.



The outside diameter must be ground square with the face of the flange and concentric with the bore,  $\frac{3}{8}$ " long in the flange end. A combination expanding arbor and face plate was designed to center one end, the other being supported on the chamfer in the cored bore by a three point contact center. Length of grind  $2\frac{1}{2}$ "—tolerance .001". One grind only necessary—production 200 pieces per hour. This installation reduced the piece rate from \$2.00 to 40c per hundred.