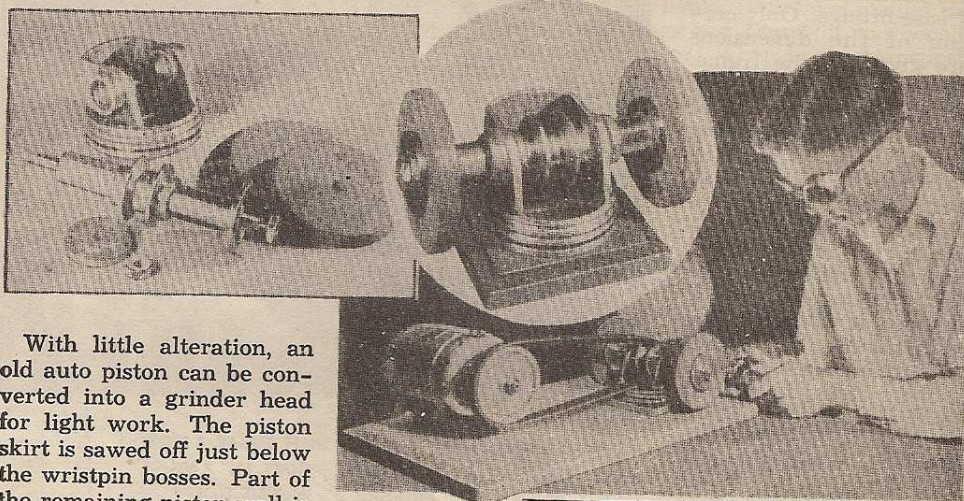
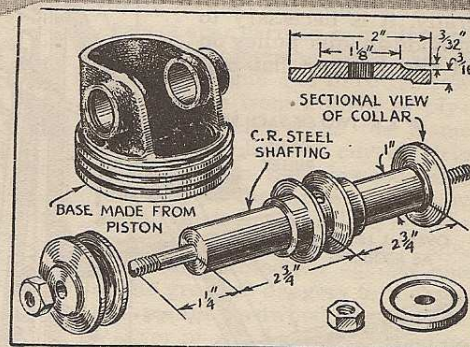


Altered Auto Piston Forms Sturdy Grinder Head



With little alteration, an old auto piston can be converted into a grinder head for light work. The piston skirt is sawed off just below the wristpin bosses. Part of the remaining piston wall is then cut away to allow for the V-belt drive. By cutting a hole in the base of the grinder it can just as well be driven from underneath. The shaft is a cold-rolled rod with its ends turned down to fit the grinding-wheel holes and threaded for retaining nuts. Collars are made to hold the grinding wheel. The pulley is turned from steel and is held in place with a setscrew. Oil holes are drilled in the shaft bearings. After drilling screw holes in the base, the grinder is ready to fasten to the bench.



Hints on Protecting Tools and Instruments From Rust

Fused calcium chloride can be used to prevent tools and instruments from rusting if they are stored in airtight cans or containers. A few lumps of calcium chloride are placed in a wide-mouth, uncorked glass bottle, which is then set in the can with the tools. The calcium chloride rapidly absorbs moisture from the air. After some months of use, the chemical will have collected so much moisture from the air that it has changed to a liquid. It should then be replaced, or renewed by heating it until the water has evaporated. Fine instruments, such as balances and micrometers, that have become rusted may be cleaned by rubbing them with a soft cloth moistened with a rust solvent,

which is made by mixing equal parts of oleic acid, ammonia, and denatured alcohol. After mixing, this solution should be filtered through cloth to remove any particles of foreign matter that might scratch the work being cleaned. When the rust has been removed, the instruments should be polished with precipitated chalk, which is applied with a soft cloth moistened in fine oil. Tools that cannot be stored in a dry place may be protected from rust by coating them with a paste made by melting together lard, 8 oz., and pure rosin, 1 oz. When cool, add enough benzine to make a paste. This should be applied in a thin, even layer with a fine cloth.