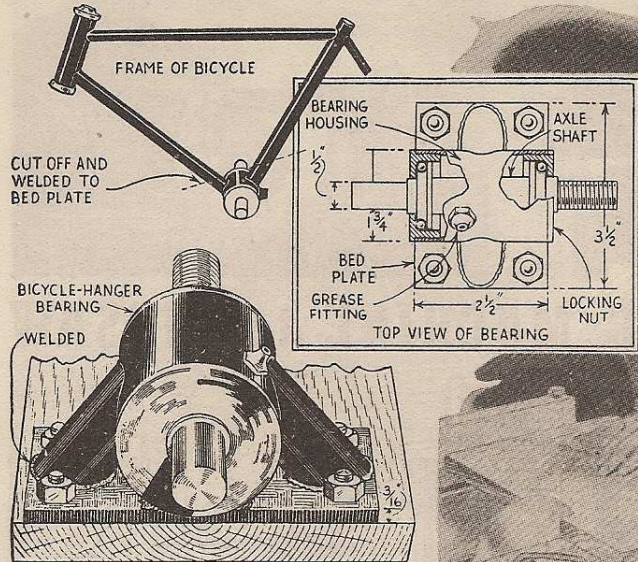
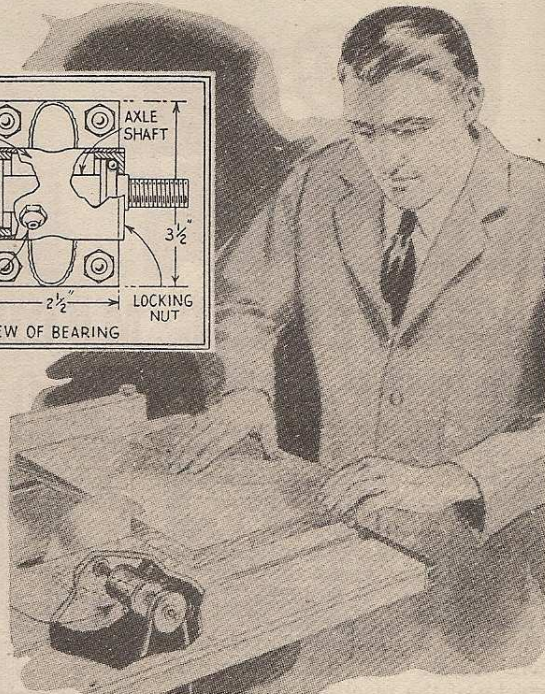


Ball-Bearing Mandrel From Bicycle Pedal Hanger



With very little alteration, a pedal-hanger assembly provides a rugged, inexpensive ball-bearing mandrel for a homemade power grinder, circular saw and similar high-speed tools



If you are planning a homemade tool that requires the use of a mandrel, such as a grinder, table saw, etc., the pedal-bearing assembly of a discarded bicycle will provide a ball-bearing mandrel that is free running and dust tight. Saw the frame to sever the hanger and weld the remaining stubs to a metal plate to simplify mounting the assembly. Then remove the pedal

cranks and turn down the projecting ends of the shaft to the desired diameter; usually a $\frac{1}{2}$ -in. diameter is the most suitable. Threading the turned ends of the shaft so that nuts can be driven on in the direction opposite that of the saw or grinder rotation completes the job. If desired, a grease fitting can be fitted on the housing to simplify lubricating the bearings.

Index Mark on Compound Slide Shows Maximum Cross-Feed Limits

Accidentally backing a compound slide off the feed screw on a metal-turning lathe will not happen if a white index mark is painted on the saddle and the bottom slide of the rest to show the operator the maximum length of the thread. Run the cross-feed out to the limits of the thread before marking. This makes it easy to prevent running out the saddle too far by merely watching the marks and stopping when the two are aligned. This idea is especially helpful when a beginner is unfamiliar with the compound slide. If you wish, the index marks can be made by applying narrow strips of adhesive tape instead of paint to the saddle and bottom slide.

