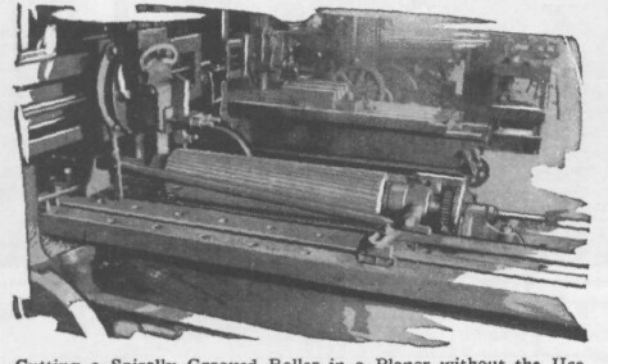
Cutting Spirals

Cutting a spiral or, more correctly, a helix, usually calls for expensive machinery. To do such a job accurately without this equipment is practically impossible, but if the spirals need not be absolutely accurate they can be cut by simpler methods. In the photo is shown a method of cutting a spirally grooved roller in a shop where the only machine that could handle such a large piece was a planer. The roller was mounted on centers and was free to turn about them, subject to the control of a spiraling arm, which was setscrewed into the roller shaft and carried on its end a small roller that traveled up and down on a stationary bar as the whole rig, except the bar, was reciprocated by the motion of the planer bed. A spring set in the far side of the swivel arm kept the roller tight against the bar all the time. After each cut was made, the setscrew was loosened and the roller turned an amount equal to the spacing between the spiral teeth, and then the arm was tightened for another cut. The cutting was done by a tool ground to shape and fed directly downward into the roll. Spirals made in this way answer nicely on such pieces as feed rollers on woodworking machines, leather feed rolls and for grinding. — D. Hampson, Middletown, N. Y.



Cutting a Spirally Grooved Roller in a Planer without the Use of Expensive Machinery