FIGURE 1
STEP 1 – When cutting the impeller O.D. it is suggested that the tail stock of the lathe be utilized and act as a stabilizer.

FIGURE 2
For holding the impeller in the chuck. Note the use of a flat block of wood between impeller and blunt tail stock.

FIGURE 3
STEP 2 – After impeller has been cut to size, make certain that all burrs are removed. Insert mandril into impeller and place on balancing ways. Spin the impeller lightly and allow to turn until it stops rocking.

FIGURE 4
Make a chalk mark at the bottom center of the impeller. This is the unbalanced point.
FIGURE 5

STEP 3 – Place impeller in chunk on drill table. Align flat mill cutting tool at center of imbalance point on the impeller wall. If the unbalanced condition is quite pronounced make the first cut about 1/64” deep and 2” to the left and right of the center point.

FIGURE 6

This is done by moving the handle attached to drill table back and forth. A continuous balance check should be made during this operation. The impeller is properly balanced when it remains stationary on the balance ways on any point of its 360º periphery.