Fig. 14.75  Belt Tightener.  (1) Draw details.  (2) Draw assembly.  It is assumed that the parts are to be made in quantity and they are to be dimensioned for interchangeability on the detail drawings. If assigned, convert dimensions to decimal inches or redesign for all metric dimensions. Use tables in Appendices 5 to 14 for limit values. Design as follows:

a. Bushing fit in pulley: Class LN 2 fit.
b. Shaft fit in bushing: Class RC 5 fit.
c. Shaft fits in frame: Class RC 2 fit.
d. Pin fit in frame: Class RC 5 fit.
e. Pulley hub length plus washers fit in frame: Allowance .005 and tolerances .004.
f. Make bushing .010" shorter than pulley hub.
g. Bracket fit in frame: same as 5 above.