

**FIGURE P12-14**

Problems 12-35 and 12-36

- †‡12-35 Figure P12-14 shows a fourbar linkage and its dimensions in inches. All links are 0.08-in-thick steel and have a uniform cross-section of 0.26-in wide x 0.12-in thick. Links 2 and 4 have rounded ends with a 0.13-in radius. Link 3 has squared ends that extend 0.13-in from the pivot point centers. Design counterweights to force balance the linkage using the method of Berkof and Lowen.
- †‡12-36 Use the data of Problem 12-35 to design the necessary balance weights and other features to completely eliminate the shaking force and shaking moment the linkage exerts on the ground link.

† These problems are suited to solution using *Mathcad*, *Matlab*, or *TKSolver* equation solver programs.

‡ These problem solutions can be checked with program FOURBAR which is on the attached DVD.